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Sir Peter's great debate

Last week the University Grants Committee sent out a circular letter that is quite unlike any other letter which the universities have received from Park Crescent. It asks for their views on almost every issue of higher education policy and practice that has ever been raised. Its explicit intention is to begin a great debate about the future of the universities. The 28 questions asked in Sir Peter Swinnerton-Dyer's letter and a commentary on them are printed on page 12.

The first and natural reaction to the UGC's new strategy is to welcome it as a breath of fresh air. The universities are being invited to participate in the planning of their own future with an open-minded generosity which apparently has not been characteristic of the UGC in the past. Every important item is on the agenda - closures and mergers, broader undergraduate courses, tenure and "new blood", a new deal for research, subject balance, the unit of resource, privatization, continuing education, the future of the binary policy. The time frame is similarly capacious: the developing pattern of the universities up to the end of the 1980s is to be considered and only after 1995 do events disappear into the mists of future doubt.

A second and equally positive reaction is that the new strategy is a natural and perhaps inevitable consequence of the renewed vigour that the UGC has shown since the spring of 1981. After almost two decades of drift the committee during the last two and a half years has reasserted its leading role in the making of university policy. For the first time since the Robbins report the UGC has taken important and independent decisions about the future shape of the system. As it could hardly retreat from this new and more vigorous role, it had to go forward. Sir Peter's great debate is the natural consequence.

A third reaction is that the UGC has no choice but to open up the debate. On the wrong side of the binary tracks the National Advisory Body has exploited to the full the political support of both local authorities and the Department of Education and Science to which it is entitled by their direct participation in its work. The most recent result has been the £20m addition to the advanced further education pool at a time when talk of further cuts in the university grant is barely suppressed. The new UGC strategy therefore is in part an attempt to recapture the initiative that is in danger of slipping into the eager hands of the NAB. It is no accident that Sir Peter has stolen some of Mr Christopher Ball's clothes, a more open system of decision making, widespread consultation, and a far-reaching debate with an open agenda.

Yet simply to conclude that Sir Peter has got it right and then to expect to sit back and enjoy an enthralling debate about the future of the universities would be particularly naive. The UGC, of course, cannot be held responsible for either the intensity or the quality of the debate that last week's hold-all letter will provoke. The precedents are not especially encouraging. The Leverhulme report which covered very much the same ground as Sir Peter's letter applied little active interest, and the debate within the polytechnics and colleges has either been about intensely practical questions like next year's money or taken place within the incoherent interstices of the NAB itself. The available evidence suggests that it is extremely difficult to get a debate started "out there".

Given that this important question of practicality is left to one side, the issues remain that must be considered in arriving at a proper judgment on the wisdom of the UGC's new strategy. They are: qualifications rather than objects for the ultimate value of the strategy can hardly be doubted. The first is the danger of bogus participation. Sir Peter and his colleagues may be tempted to regard their initiative as a cynical ploy, seeing it as an exercise in educating the universities about the grim realities of the 1980s rather than as a genuinely two-way process that might also educate the UGC.

Certainly that is not the spirit in which they are now approaching their great debate in its new dawn. But if both the intensity and quality of that debate are low, the temptation to collapse into cynical manipulation will obviously grow. Even today by mixing Sir Peter's known prejudices with the deep-rooted institutional preferences of the UGC it might be possible to make a fairly successful guess about the contents of the letter which the committee will send to Sir Keith Joseph next summer.

The second issue is simply whether some of the topics covered by Sir Peter's letter are really the business of the UGC. Some are the business of the DES and the NAB; some of individual universities. It is easy to sound stuffy and reactionary, but universities are independent corporations not UGC subsidiaries. They have the right to make independent judgments about their own futures. To assert this is not to appeal to some doomed regard for defence of constitutional rights that can no longer be squared with the reality of dependence but to insist on the entirely modern principle of pluralism. The universities should certainly consider Sir Peter's 28 questions but they should be put under no pressure to come up with convenient answers that conform to a common pattern. It

would be a mistake to hope that the UGC's great debate should lead to a tidier university system. The third issue is closely linked with the second. Is there a danger that the universities have been encouraged to enter into a wide-ranging debate with a virtually open agenda will pay less attention than they should to the immediate issues that must be resolved? In other words, is there a danger that they will not see the trees for the wood? The most immediate issue facing the universities is whether or not to reverse the "quality first" policy to which the UGC committed them in 1981 by reducing student numbers to protect the unit of resource (income per student).

It is not clear that taking part in Sir Peter's great debate will necessarily lead to clearer thinking on these fundamental questions. Indeed a case could be made for arguing that a rather more disciplined great debate that concentrated on the half dozen questions that universities must answer by the end of the decade might have been more effective than the present sprawling debate that includes any and every topic of interest, many of which must be peripheral to the main issues of universities. Perhaps greater concentration and so coherence can be achieved in the course of Sir Peter's debate by some vigorous sifting.

There is even a slight danger that Sir Peter himself may see his letter in this distorted light.

This issue is important for two reasons. First, credit should be given to those to whom it is due. Sir Peter's present freedom to manoeuvre would not have been possible if his predecessor Sir Edward Parkes had not so courageously reasserted the UGC's right to make independent judgments in 1981. This is unaffected by the fact that some of those judgments may have been wrong in detail. Second, Sir Peter's initiative must build on the precarious independence which the UGC has reestablished. It must be firmly seen as an attempt to enhance the sophistication of the UGC's own independent judgments, not as an intelligence gathering operation on behalf of the DES or an exercise in educating the universities in grim Josephite realities.

The fifth issue is simply the UGC's responsibility to exercising leadership. The example of the NAB shows that open and participative planning does not rule out firm leadership about fundamental priorities. The leaders of the NAB have made no secret of their commitment to achieving a better regional balance and to encouraging sub-degree and part-time courses, both of which send strong and clear signals to the polytechnics and colleges. The NAB's overarching priorities can be summed up in two words - access and jobs.

Under Sir Edward Parkes the overarching priorities of the UGC were just as plain. They were that quality should be put first, in the sense that no irreversible compromise should be made which would erode those values and practices characteristic of a university education and that the highest priority should be given to maintaining, and in some areas like social science improving, the intellectual capital of the universities. They could be summed up in two words, standards and values. Everything that was done in and since 1981 was consistent with them. That was why the unit of resource, restructuring and "new blood" were the three principal battle fields on which the Parkes UGC fought.

There is a danger that just as the universities may fail to identify the trees for the wood the UGC itself may fall away from the solid principles with which it has been identified. The committee under Sir Peter of course may wish to modify its former principles, but it must not lose sight of the fact that the UGC is a body of trustees, not a body of managers. It must send clear signals to the universities; it must exercise leadership.

In every debate, however open, there has to be an agenda. The only choice is whether that agenda is acknowledged or remains hidden. If it remains hidden there is always the danger of mis- or over-interpretation. For instance, Sir Peter's letter appears to give little emphasis to continuing education and a lot to the inevitability of a sharp drop in student numbers in the early 1990s. Is this a secret signal? Far from foregrounding the debate clear leadership from the UGC can give it greater coherence.

Perhaps this the most difficult task facing Sir Peter and his colleagues in their great debate. They must exercise leadership by indicating their commitment to authentic values to which the universities are genuinely attached rather than displaying weakness by revealing their deference to bogus Josephite values (closures? privatization?) and the waxing and waning fads of Westminster and Whitehall. If they can succeed in holding this line - and resist the temptation of bogus participation to focus the debate on the half dozen essential issues and accept that an unduly system may be a precondition of pluralism - the UGC's great debate could mark a significant and perhaps overdue improvement in the way we make university policy.

Laurie Taylor



Registrar
Sir?

Is everybody now assembled?
Yes, vice chancellor. Just apologies from Professor Koenigsberger whose overnight flight from Hongkong has had to turn back because of serious engine trouble, and from Doctor Piercemuller who's still fixing his garage roof after the recent heavy winds.

Otherwise everyone's here?
Yes indeed, sir. A total of 28.

Excellent. Let us then begin. Ladies and gentlemen; members of the academic staff of the university; as you will know this is indeed an auspicious occasion for each and every one of us and for the institution which we are proud to serve. But let me not delay the proceedings with more words. Bursar! Sir?

Will you now please lower the lights and draw the curtain. Certainly, sir.
(The curtain slowly parts. The university choir sings the Hallelujah Chorus)

There! Isn't that a magnificent sight? Truly magnificent?
(Cries of "Ah" and "Ooh")

Just look at those powerful young limbs.
(Cries of "Aah" and "Oooh")

That firm stomach with no hint of bulge or droop.
(Cries of "Aah" and "Oooh")

The taut buttocks.
(Cries of "Aaaaah" and "Ooooooh")

The sheer elegance of the moment. No telltale stoop or slump.
(Cries of "Aaaaah" and "Ooooooh")

The clearcut gaze.
(Cries of "Aaaaah" and "Ooooooh")

The dark hair without a fleck of grey.
(Cries of "Aaaaah" and "Ooooooh")

The unlined forehead.
(Cries of "Aaaaah" and "Ooooooh")

LADIES AND GENTLEMEN
(Applause and cheers)

WILL YOU PLEASE
COME TO THIS UNIVERSITY

(Music rises to a crescendo
Hallelujah, Hallelujah)

DOCTOR CRESSWORTH
(Scenes of near panic)

OUR VERY FIRST
(Total ecstasy)

NEW BLOOD
APPOINTMENT

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Pym cash goes on students already in UK

by John O'Leary

Up to half the foreign students benefiting from the Government's £46m package to offset the effects of full-cost fees were already studying in Britain before the new arrangements were introduced.

Almost 4,000 students are being supported through seven different programmes launched last month. But because of the limited time available after Mr Francis Pym's February announcement, only about £10m will be spent in the current academic year and by no means all of the money will have the effect of increasing the flow of overseas students into the country.

Both the number of students aided and the proportion of new entrants will increase considerably next year. A decision to extend the life of the scheme beyond their current three-year stint is expected before the end of the month.

Representatives of four Government departments and several other organisations concerned with overseas students will meet today under the chairmanship of Mr Raymond Whitney, a junior minister at the Foreign and Commonwealth Office, to discuss the progress of what has become known as the "Pym package". It will be the first of a series of round table discussions on questions relating to overseas students.

Two small new schemes have been added to those identified when the package was announced. One will exempt students from the Dependent Territories from full-cost fees by making up the difference with

fees charged to their home and EEC counterparts. The other is a shared funding scheme, identical to that now operated with Hongkong, for Bermuda and the Cayman Islands.

By far the greatest response to the new schemes has been from Hongkong, which with the British Government is jointly funding 1,700 students on courses this year. Inquiries about courses in Britain have more than doubled since the package was announced.

The late agreement of a scheme for Malaysian students has restricted numbers to 350 but 800 are expected in 1984. And in Cyprus the deadline for applications has been extended in the hope of filling 700 places to utilize the £1m set aside for the island's students.

The largest of the three schemes open to other countries, the Overseas Development Administration's technical cooperation training programme, has been given £4m to fund up to 800 students, while the existing Commonwealth scholarship fund received an extra £1m for 200 more students. A new discretionary awards scheme administered by the FCO itself has provided places for 160 students. It will not be known until early next year exactly how many of the award holders were already on courses, but officials concede that the proportion is high. Some of the students concerned were supported on other schemes last year and some would have been unable to continue their studies without new assistance. But there is bound to be criticism that the money has not all been spent on bringing new students to Britain.

Shadow minister accuses UGC

Mr Giles Radice, Labour MP for Clarendon Street, the new shadow education secretary, this week accused the University Grants Committee of acting almost constitutionally.

Referring to the UGC's letter on a strategy for higher education, Mr Radice told THE TIMES: "The UGC is not there to carry out the Government's policy before it even knows how much money it is going to have. Only hope that vice chancellors will question the basis of the letter."

Labour spokesmen will continue to challenge both the UGC's relationship with the Government and the committee's assumptions on the need for future cuts. They will be among the issues raised in a Commons debate on education likely to be held in the new year.

continued on page 3

£200m underspent on youth scheme claims union

by Patricia Santelli

The Manpower Services Commission expects a £200m shortfall in spending on the Youth Training Scheme, it was claimed yesterday.

This comes at a time when several colleges of further education, notably Exeter in Devon, are said to be facing severe financial difficulties because of the shortage of trainees. Unemployed students are not paid for.

The underspending claim has come from the National Association of Teachers in Further and Higher Education, which estimates that the shortfall of entrants to the YTS in some regions is 20 per cent less than the anticipated total of 460,000.

Mr John Patten, NAFHE's assistant secretary for further education put the figure at £200m at a seminar at King's College London before he took up his new appointment to the MSC.

returned to the Treasury but must be used to raise the quality of YTS. "Shortfall of funds is artificially restricting eligibility for entry to YTS and the length of stay on the schemes. It is inhibiting staff development and without staff training YTS could easily degenerate into job substitution of the sort which tarnished the Youth Opportunities Programme."

The MSC admitted that there would be a shortfall in spending but no one knew how much because youngsters were still joining the scheme. A spokesman said the commission was aware of the college's financial difficulties but the two issues were not necessarily linked.

The Youth Training Board is to set up a working party to look into the colleges' problem with members from the Association of County Councils, the TUC, CBI and careers representatives.

It will discuss MSC papers which rule out spending £10m to help colleges and other managing agents make up funds lost as a result of the shortfall in entrants. The paper proposes extending the eligibility rules to include special groups, former YOP participants and/or 18-year-old school leavers.

According to Department of Education and Sciences figures produced in a written answer to a Parliamentary question, the shortfall in entrants to YTS cannot be explained by a higher number of people participating in further education. These show that there has been a drop from 18 per cent last year to 13 per cent in 1983 if YTS trainees are not included.

But Mr Peter Morrison, under-secretary of state for employment, in reply to a written answer, said that there were indications that the number of school-leavers entering employment this year was substantially higher than last year.

He was unable to give recent figures, but said that in July the unemployment rate for under 18-year-olds was 21.3 per cent. However MSC papers reveal that one of the reasons for the shortfall may be due to the Young Workers Scheme which is competing with YTS.

The case of Devon and authorities similarly placed is to form the substance of a resolution going to the ACC education committee in December. It supports Devon's view that local education authorities should be reimbursed for the off-the-job training element of YTS.

Another resolution at the meeting concerns the experience of careers officers in two counties. They have been questioned by the Department of Health and Social Security about young people who are not on YTS but are claiming benefits.

The resolution is that careers officers should be reporting people and that when the DSS officers should consult careers officers as why youngsters are not on the scheme before they take any action.

Partnership to become norm for validation

by Karen Gold

The Council for National Academic Awards "Partnership in Validation" scheme, which has run experimentally in two polytechnics for two years, is to be extended to become the normal system in other institutions.

The council's committee for institutions this week agreed to set up a working party to consider which colleges and polytechnics could adopt a similar system to the one experimentally introduced in Newcastle Polytechnic in 1981. That system, which the committee judged an almost unqualified success and approved to continue indefinitely at Newcastle, involved joint validation committees with members from the CNA and the polytechnic, usually chaired by a CNAA member.

Polytechnic academic staff, both from the department whose course was being validated and from other departments, would be involved in all the validation procedures, including visits, while outside of its members participate

in the joint validation committees, the CNAA virtually only gave its seal of approval. About 30 new and existing courses were validated in this way during the experimental period; according to a polytechnic spokesman the scheme's advantage was that validation took place in context and with polytechnic staff present and involved, rather than CNAA coming in and giving its marks out of 100, he said.

The experiment at Kingston Polytechnic, which only put a CNAA observer on to the polytechnic's internal validation procedures but was then intended to put greater emphasis on these, was not thought by the committee to have worked so well, but will be retained at Kingston at least until next year.

The CNAA working party will not be looking for more experimental schemes, but will try to apply the essence of the Newcastle scheme to these institutions it thinks suitable for it permanently, the committee decided.

Don't make us martyrs, urges NUS

by David Jobbins

Universities were this week warned against adopting a "get tough" approach to student unions after two campus attacks on visiting Cabinet ministers.

The National Union of Students fears that anti-Government feeling among sections of the student population is being exploited by the Socialist Worker Party student wing and other left-wing groups.

It believes they were responsible both for this week's point attack on Mr Michael Heseltine, the Secretary of State for Defence, at Manchester University and the scenes leading to a £30,000 fine on Warwick students' union during a visit by Sir Keith Joseph, Secretary of State for education.

Mr Neil Stewart, the NUS president said his own meetings were increasingly being disrupted by the SWP students and commented: "In both cases the action was entirely contrary to union policy and played into the hands of ministers like Mr Heseltine who was able to dodge questions on Government policy."

"But we betide any university which adopts the Tebbit mentality and tries to penalize the student union when its officers have tried to ensure that union policy is implemented peacefully. All they will do is to turn student unions into martyrs."

The fine at Warwick was imposed by a 28 to 2 vote of the university council which held the union responsible for its failure to control the demonstration.

Mr Jack Butterworth, the vice-chancellor, warned the union in advance of Sir Keith's visit that it would be held liable for any damage or violence. "The university council said: 'It was the responsibility of the union to control the demonstration and this the union plainly failed to do and made no proper arrangements to prevent violence occurring.'"

There is no likelihood of similar action being taken at Manchester where the authorities, including the police, did its best to control the situation.



Evil Professor Schmidt and his mauling assistant Gregor, co-authors of a plot to poison the British water supply with a brain-dissolving drug, have cornered the last man who could stop them...

The outcome of this cliffhanger will never be known, since the Sheffield City Polytechnic communications arts students who made it only needed one ten minute episode to win a £600 award for production and sound.

The film *The Flak of Doom*, will be shown to a Saturday-morning Sheffield cinema audience soon.

YOU to impose staff freeze

Town planning closures

Secondly, relations between historians of the non-European world and

Missing women

Chinese question



Chairman Hua; 100 million suffered

Fate of report

if the NAB are allowed to go on with this kind of unprofessional behaviour this time it will set precedents which will have horrendous consequences for higher education generally. My preference at rationality and objectivity in the NAB will be lost if these commendations are permitted. They must be stopped.

Young researchers deprived of pay rise, claims union

over NAB

by Karen Gold

by Karen Gold

Their appeal will be on the grounds that neither the Council for National Academic Awards nor Her Majesty's Inspectorate were capable of giving the quality rankings of town planning departments they provided for the

Members of eight public sector institution planning departments belonging to the National Association of Teachers in Further and Higher Education met this week to prepare a

Four were departments threatened with closure under the "quality" decision - Liverpool, Leeds, Trent Polytechnics and Gloucestershire College of Arts and Technology; the other four were Bristol, Birmingham and Coventry polytechnics and Chelmer

They agreed a letter to members of the NAB committee which says that decisions based on assessments by the CNAA, HMI and the professional body must be regarded as suspect, because these bodies are constituted to make minimum, not relative, assess-

UGC accused

partments into three groups brought angry reactions from polytechnic directors, who discussed their response this week at a day-long meeting considering their relationship with the CNAA. Directors of Leeds, Trent and Liverpool polytechnics have all written to the NAB committee opposing the

The Committee of Vice Chancellors and Principals has circulated a 25-page briefing document to universities, setting out the background to each of the UGC's 28 questions. It reaffirms the CVCP's view that official estimates of the future demand for university places have been too pessimistic.

New London dental unit prompts fears for Bristol

The Medical Research Council has announced the foundation of a new dental unit at the London Hospital Medical College, in a move which casts doubt on the future of its only existing dental unit in Bristol.

The council now acknowledges that it cannot find a new director for the Bristol unit to succeed Professor A.D. Darling who retired last year, and it is now anxious to close a unit of normal practice which cannot be found. The position of the Bristol unit is formally subject to further review by an MRD committee, but the new unit in London is clearly intended to replace it.

The unit at the London Hospital will be set up under Professor Neville Johnson, who also takes up the Nuffield Chair of Dental Science at the Royal College of Surgeons.

The council's annual report for 1982/83, published this week, outlines the MRD dental committee's work, opportunities for new research, and hopes to stimulate new work in the area. The council and the Royal College of Surgeons now hope that their link through the new joint appointment "will provide a national focus for training as well as

representing a major new initiative in British dental research?

The MRC annual report also reveals increasing pressure on grant-awarding boards, especially on research studentships. Only 282 awards for research studentships were made during the year, selected from over 1,000 applications.

The MRC, with an annual budget now running at over £110m, is the second largest of the five research councils, and 61 per cent of its research funds go on its own establishment of research units. It is also feeling the pressure of overseas subscription

Bartok rather than the 'big band sound' is what the saxophone choir rehearses when they meet for a practical musicianship adult class at Goldsmith's College each weekend.

Most of the music played is adapted by the choir's tutor Roger Cawkwell who believes that the choir is the only one of its sort which is open to people to join with a mix of ability from the near professional to music student. It includes up to six sizes of instruments.

Glasgow law inquiry

Glasgow University is inquiring into the performance of students on its contract law course after a failure rate of almost twice the average on other law courses was recorded in examinations this year.

Some students have appealed to the university senate after failing the examinations amid complaints that the reading load is too heavy, the back-up support for re-sits is too limited, and work direction is too vague.

In the examinations in June and re-sits in September 100 out of 191 students either failed or were absent. About 70 were second or third candidates retaking the examination. Law courses have an average pass rate of 80 per cent.

The results have already been discussed within the faculty of law, and been referred to the registrar. The dean of the law faculty, Professor Tom Campbell, expects to respond to the student appeals before the next senate meeting on December 8.

Professor Campbell said every step was being taken to see that matters were improved by next year. "There are many different opinions about why this has happened. But we hope to produce considerable improvements for next year."

Ms. Katie Muir, vice-president of the Student's Representative Council said she had had complaints over a number of years. "Students are critical of the poor back-up and the heavy reading load. Everyone would do much better with better direction and explanation."

Some students feel the course is far more demanding than comparative contract law courses at the universities of Edinburgh or Dundee.

although not the same extent as the Science and Engineering Research Council. Nevertheless, the report records that some domestic programmes had to be cut to find an extra £140,000 for payments to the European Molecu-

The council's subscription to the molecular biology laboratory, which costs over £1m a year, is under review following a recommendation from the Advisory Board for the Research Councils, and its future will be decided early next year.

Women are 'top priority'

The recruitment of more women into science and engineering will need action at all levels of the education system, according to speakers at a planning conference for Women into Science and Engineering Year (WISE) in London yesterday.

Professor Daphne Jackson, president of the Women's Engineering Society and head of the physics department at Surrey University, said top priority must be to increase the pool of women students qualified to enter higher and further education.

But she also wanted to see university and polytechnic departments making more effort to recruit women students, to relieve their isolation on technical courses and to improve career prospects for academic women.

the recent increase in the proportion of women graduating in engineering and technology had been largely confined to the universities. The number of women on polytechnic engineering degree courses was still very low and the proportion on technician courses

Further encouragement would come if there were more women staff in departments, she argued, and British efforts here were way behind the United States. "In this country, the professional societies and standing conferences of heads of departments

The conference was organized by the Standing Conference on Schools Science and Technology, the En-

The council believes that increasing female entry into the profession would be the most economical way of increasing the pool of talented engineers. The WISE programme will include science

Earlier, WISE planning meetings have called for a range of measures including a coordinated programme of retraining for women returning to work or seeking entry to courses at universities and colleges.

entry of women on to engineering courses; and formation of a network of Women's Engineering Society student groups at universities and polytechnics.

DON'S DIARY

MONDAY

Last day of examinations, postponed from July because of student troubles. Only first years and finalists have been readmitted, which means that as we run a four-year degree course we have only half a college.

Long discussion with Oxford researcher who was with us some months ago and has just returned from visiting the many refugee camps in the south. She is concerned with what she has seen, is already seeking contributions for a symposium towards an alternative strategy, and suggests a conference under university auspices next year. Agree to take this to the college academic board.

TUESDAY

Academic board (the dean and senior subject heads; three Sudanese, one Ghanaian, one Dutchman, one Brit) welcome idea of conference, as long as intending participants are fully apprised of conditions in one of the poorest parts of Africa, including difficulties of transport, and shortages of funds, power and accommodation. Since it is hoped to have some sessions in the camps themselves, it is important that the message gets across. The college has already a proposal for a Centre for Refugee Studies under consideration, feeling that some of the research is at the moment being undertaken in centres very far removed from the problems. We remain wary of accepting funding from international agencies for this could limit both our freedom of action and our academic independence.

Mall: Light aircraft flights, on which much of our mail comes from Europe via Nairobi, have been curtailed recently and today's delivery is the first for almost a fortnight. Letter from our children, both happily at school in England.

Start final year financial management course with a warning about its intensive nature because of the shorter semester.

WEDNESDAY

After discussion with senior colleagues, send for typing final draft of college report to forthcoming university council meeting, our governing body. Recurrent cries for more staff, more equipment, better facilities, but all realize the country's plight and desperate shortage of hard currency and are willing to soldier on. On positive side, we are happy to draw council's attention to our revised curriculum, better integrated than ever before. The College of Social and Economic Studies embraces many subjects, from accounting and anthropology, to sociology and statistics, giving a general background in the first two years and allowing some student specialization thereafter. For the first time we feel we have the right mix.

To our main lecture theatre in the evening for a public lecture on women's lib, given by one of our college staff, an Indian from Tanzania. A highly based on UN publications and data, addressed by a varied audience of students, staff, local and expatriate residents, and lively discussion, but sadly not one Sudanese woman, either Muslim or African, spoke.

THURSDAY

Meeting with the acting vice chancellor, as have the dubious privilege of being secretary to the housing committee. The university is growing faster than the capacity of our contractors so that our stock of more than 80 staff houses has to be augmented by renting more and more houses in the vicinity. Yet more staff are expected, some with their families, and we are in the familiar position of lacking immediate university accommodation for some of them, but all will get a roof over their heads somewhere.

In the afternoon referee a soccer match at the local stadium between teams representing the VSOs and the UN, both happily and wisely augmented by some local talent. As the VSOs won 7-3, it seems they were more careful in their selection. Talk with the secretary of the regional sports council about running an intensive referee's course for participants from each of the three southern provinces and agree that a long weekend would be sufficient.

FRIDAY

Financial management students all handed in their first assignment, a good start. Two examining panels today. Our third year students spend at least three months in relevant organizations, both working and collecting information to write up a research project. This is a major task, carrying half the year's marks and assessed both for its content and by oral examination. We met to consider the resubmission of two projects referred earlier this year; both students showed substantial improvement, both passed, both joyful as well they might be, for failure would have meant the end of their university career.

Game of doubles in the afternoon. Juba has but two tennis courts, very well-used. Am not up to the standard of some of my colleagues, but they tolerate my portliness because of my grey hairs, although partner, reasonably affectionately, calls me the millstone!

SATURDAY

Down to the airport to meet the UN regional adviser for finance and administration with whom we work closely, who is returning from long leave accompanied by three staff members from the Institute of Local Government Studies in Birmingham. They send people here each year to advise and assist with training programmes and the university always tries to make maximum use of their presence, new faces and new ideas being of great value in our customary isolation almost 1,000 miles south of Khartoum.

We entertain two bachelor colleagues to lunch and as ever spend the late afternoon and early evening listening to *Sports Roundup* on World Service. Sadly, the once-mighty Arsenal lost, but so did West Ham and Liverpool. Duplicate bridge at a colleague's house in the evening.

SUNDAY

At last! In spite of various references to recreation, we have a work pattern of 7am to 2pm and 6.30 to 8.30pm six days a week, so that Sunday is really welcome in its traditional form as a day of rest whereon we try to do little more than read or write letters. It is also a day for reflection. In conditions remarkably different from those at home, it is easy sometimes to wonder what one is doing here. On the other hand, the opportunity and the stimulus of working in an expanding university with colleagues from no less than 14 countries is rewarding and well worthwhile. At least we have the satisfaction of not merely working with, but living and mixing with the Sudanese which seems largely denied to expatriates in many of the agencies. We meet the indigenous colleagues at work, then retire to the locked fastnesses of their compounds. Juba is an experience which, more than four years on, I am still glad to be undertaking, and I feel at least as usefully employed as in almost a decade in a senior position in a British Polytechnic.

Frank Rhodes

The author is professor and head of public administration and management at the University of York in England.

Efficiency rules mapped out

by Paul Flather

Geographers are now confident that Government plans to turn the Ordnance Survey mappers' unit into a commercial operation will have to be abandoned.

Last week the Ordnance Survey's advisory board reported to ministers that there was no need to force greater commercialization to achieve their aims of greater efficiency and greater cost-effectiveness.

The advice comes after the Government defeat in the House of Lords in February when peers, led by Lord Shackleton, voiced their opposition to the idea of setting up a trading fund, as now used for the Royal Mint and HMSO.

The original proposals provoked widespread opposition from the scientific and mapping community, including the Royal Geographical Society and the Royal Institution of Chartered Surveyors, fearful that the survey's large scale mapping work would be undermined.

Almost 80 per cent of the Ordnance Survey's work is concerned with large and medium scale mapping, most of which could never be profitable. Last year the survey spent £31.7m on this kind of work, earning £9.7m in revenue, while £10.2m was spent on small scale work, earning £10.5m in revenue. It has 2,970 staff, down from 3,475 in 1980.

The advice has been given to Mr William Waldegrave, under secretary at the Department of the Environment, and a decision should be made before the end of the year. It is thought highly unlikely that the Government will be able to reject it.

Brigadier George Hardy, deputy director of the RGS, said: "After all these months naturally we are very pleased with the advice. There are already signs that the OS work in large scale work is flagging."

The advisory board, headed by Sir Robert Clayton, lays down the conditions for making the OS more efficient: financial targets reviewed every three years; annual report and annual trading accounts to be published; and a rolling five-year budget to be drawn up with ministers.

Some geographers are worried that these conditions will force the OS towards greater commercialization and might also undermine the work of independent map publishers like Phillips, A to Z, and Bartholomew's. A meeting has been arranged for December to discuss this.



Students demonstrate nationwide

A wave of occupations and other demonstrative action against cuts in public sector higher education swept England and Wales last week.

Polytechnics in occupation included North London, Central London, City of London, Middlesex, Portsmouth, and Manchester. Ravensbourne College of Art was occupied for four days, while in Leeds, Liverpool, Portsmouth, Coventry, Manchester and London, there were rallies and meetings to protest about the probable effects of the proposals from the National Advisory Body on public sector higher education.

Students from North East London Polytechnic organized a week-long ceremony in Downing Street and a meeting with Ms Frances Morrell, leader of the Inner London Education Authority.

At Middlesex a planned library work-in in protest at restricted opening hours hurriedly turned into an occupation when students were evicted from the library.

Above, students at West Midlands College of Higher Education, one of the colleges threatened with closure as a result of the National Advisory Body's plan for 1984/5, are addressed by Councillor Eric Allison, vice chairman of Walsall education committee.

The book, a detailed study of the history of research commissioning by the Department of Health and Social Security from the Medical and Social Science Research Councils, comes just a week after Sir Ronald Mason's report to the Advisory Board for the Research Councils which criticizes the "customer-contractor" arrangements for research.

Sir Ronald's report endorsed the general outlines of the customer-contractor principle instituted after the Rothschild report in 1972, but called for stronger chief scientists' offices in government departments. Professor Kogan's book suggests the problem is more complex than this on at least two counts.

First, the book suggests that there is a set of issues which have not been properly addressed by government - questions of the balance between teaching and research, the inducements given to established academics for participating in commissioned research, the training of researchers in different fields.

In addition, they suggest that identifying a government department as "customer" and a research council as "contractor" is too simple a metaphor for interaction between two very complex organizations, with different goals, interests and world views. In a series of detailed case studies, they show how the DHSS and MRC's attempts to work together were often bedevilled by misunderstandings and disagreements borne of different views about the role of academics in policy-making and of government priorities in science policy.

Government and Research - The Rothschild Experiment in a Government Department, Heinemann Educational Books, £18.50.

Two senior members of the polytechnic directorate are to visit St. Aldate's College, Oxford on Monday to look at its provision. One is Michael Rhodes, deputy director of St. Michael's College, whose outline paper on the subject was reviewed with some of the polytechnic's senior staff.

The polytechnic's academic committee agreed to look at the link further, despite questions being raised about St. Aldate's interest, the background of the scholarship students, and the fact that the polytechnic might have to pay for the scholarships.

Academic committee member Dr John Farquhar said that although the subject of departmental admissions requirements, they would still be at the top of the queue.

Research system criticized

by Jon Turney
Science Correspondent

The commissioned research system will not work as intended unless government pays much more attention to research in universities as well as research councils.

This is one of the conclusions of a book on government research sponsorship published this week. The authors, Professor Maurice Kogan and Mary Henkel of the department of government at Brunel University, say the Department of Education and Science has never been approachable on the kind of higher education system which is needed if commissioned research is to be maintained.

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Poly considers link with private college

Middlesex Polytechnic is considering a link with a private Oxford tutorial college, in which polytechnic departments would help prepare the college's scholarship students and then consider them for polytechnic places after their A levels.

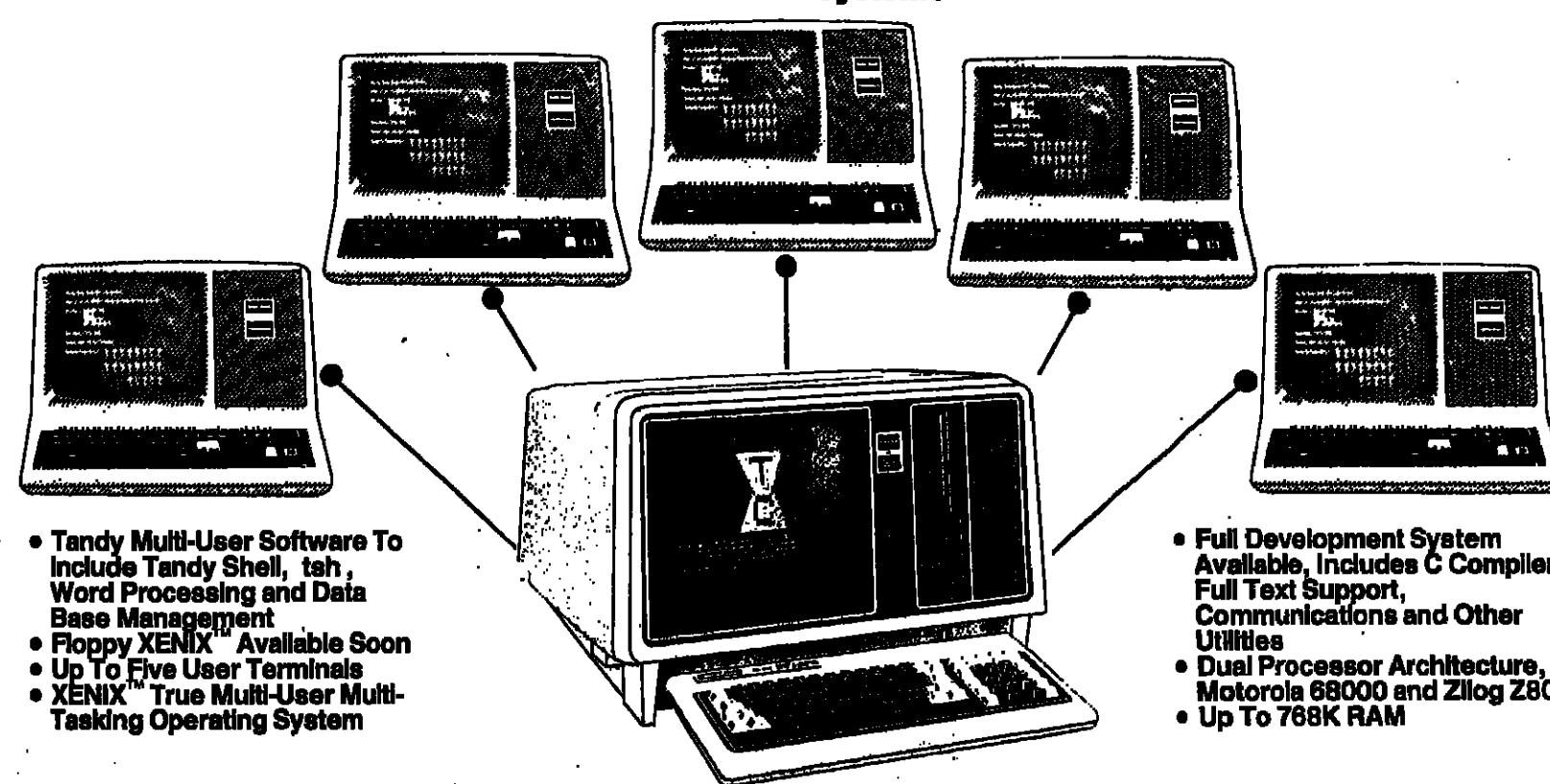
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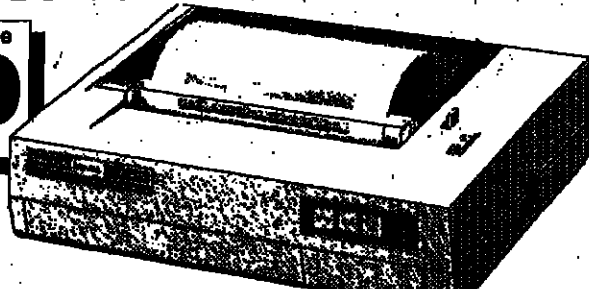
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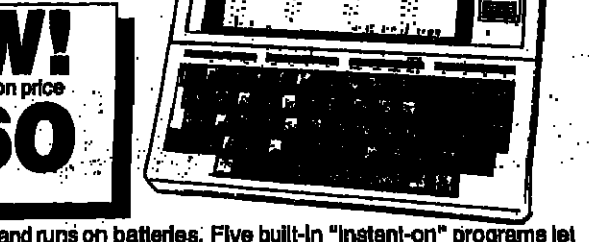


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Art thinking out-of-date, out-of-place

by Owen Surridge

Traditional academic research attitudes were castigated as irrelevant and out of date at a meeting of 200 art teachers in London last week. The meeting, arranged by the art and design department of London University's Institute of Education, was prompted by anxiety about what is seen as a growing gap between art academics and art teachers.

Professor Leslie Perry, of the University of London told the conference bluntly: "We have to get away from the idea of scholars who get on with their own work, which is strictly of interest only to themselves and of limited consequence." Arguing the case for team research and more scientific methods, he said there was a need for a thorough, wide ranging inquiry which would benefit teachers in classrooms.

He warned though, that the results of such research should not be seen as panaceas. "Art educationists tend to take over the research results of pure theorists," he said. They really needed to interpret results to fit their own situation. "The results of many very worthy projects needed to be looked at again bearing in mind where the results will be applied."

Professor Perry said that new social pressures on education demanded research of a very different kind from the academic tradition. The need now was for research projects designed to supply specific answers which could be applied in the field.

He said that too often teachers and their classes were volunteered for projects by head teachers without being asked. "We cannot expect results from people who resent us being there and we must remember that a class is there to be taught," he said.

Mr Donald Earle, head of an art department in an Essex comprehensive school, attacked what he described as "the new and terrible policy of CNA", which was about to award MPhil and PhDs to painters and others. He also condemned as "incredibly misguided" the Royal College of Art's intention to introduce a new award called Doctor of Art.

The Pru serves writ on Southwark

The Prudential Assurance Company has served a writ on Southwark Borough Council, demanding that it fulfils its contract to sell land to the proposed South Bank Polytechnic Technopark.

The deadline for the contract passed 10 days ago, with the council refusing to sell the land for the £4.5m technopark, unless the Prudential promised to develop the whole project in one rather than in two stages.

Southwark has 14 days to respond to the writ, after which a date will be fixed for a court hearing. But the council this week wrote to the company and the

Brain research funding cut

by Jon Turney
Science Correspondent

The European Science Foundation, like most of its subscribing members, is struggling to support new programmes on a fixed budget, without abandoning worthwhile existing projects.

At its annual assembly in Strasbourg last week, plans were approved to shed responsibility for some of the funding required by its established European Training Programme in Brain and Behaviour Research. But despite this, the assembly heard there were still problems meeting budget requirements for at least one major new initiative, a social scientific study of second language learning by adult immigrants.

The brain and behaviour programme, which has funded fellowships, travel grants and collaborative projects since 1976, now costs the 10 member countries of the ESF £150,000 a year. The organizations putting up

this money will now have to find extra cash as the programme has been changed from an "associated activity" of the foundation to an "associated activity" from 1985. The latter category, invented this year, means that the foundation wishes to carry on the programme but will not pay any of the overheads, as in the past.

The ESF's president, Professor Henri Curien of the National Space Studies Centre in Paris, explained that the foundation could not start new projects without shedding some old ones. Member organizations, which in Britain include the research councils and the British Academy, generally had fixed budgets themselves, and the foundation had to stop their contributions rising.

New activities reported to the assembly included a working group in environmental toxicology, working on behalf of the European Commission, and pilot studies to see if the ESF could act as an umbrella organization for smaller countries seeking a part in

ocean drilling projects.

In future, the foundation will be looking to improve its contacts with the US and, possibly, Japan, M. Curien said. A recent joint meeting of the European Science Research Councils and the US National Science Foundation in Washington to evaluate research and set priorities had shown there was a will in the US to find a partner in Europe for discussions about planning big projects, he said.

In the European context, he stressed that the foundation wanted to act as the voice of the scientific community when governments were considering cooperation in research, but did not wish to play the same role as the Council of Europe or the European Commission.

"We are proud to represent the scientific community, not the bureaucratic community, in Europe," he said. The foundation would continue to try and influence European science policy from the side of the scientists.

Commercial cash

A new company devoted to commercialisation of ideas from university departments and government research establishments was launched last week. Business Applications of Science and Engineering (BASE), chaired by Sir Henry Chilver, vice-chancellor of Cranfield Institute of Technology, has £450,000 of initial capital from Royal Life Insurance, TR Technology Investment Trust and the BP pension fund.

The company, based in Mablethorpe, will also cover contract research organisations, and will take part in the Ministry of Defence's scheme to transfer technology from research laboratories to civil sector companies.

Doctors' orders

The three Royal Colleges of Physicians, in Glasgow, Edinburgh and London, have been asked to step up their involvement in medical education overseas. An international conference on postgraduate medical training in Leeds last week called on the colleges to explore how they could improve their help in development of medical examinations overseas, and how they could encourage foreign doctors with suitable qualifications to take postgraduate courses in Britain.

PRIME site

Plymouth Polytechnic is to have its largest American-made PRIME computer in the United Kingdom following a decision by Devon County Council to spend over £300,000 on the new computer in exchange for the council taking back the polytechnic's present smaller one. The PRIME 9950 will be used for all the polytechnic's teaching and research work.

Crowded journey

More than 2,000 people applied for the British Council's 30th anniversary travel awards, worth a maximum of £1,000 each, in the first 10 days of advertising. The awards enable the winners to spend between three weeks and three months abroad on a project contributing to closer cultural relations between Britain and other countries.

The awards are restricted to applicants between 25 and 60 and will be distributed next March. Proposals of about 500 would be submitted by December 2.

New development

Professor Peter Williams, head of the department of education in development countries at London University Institute of Education, has been appointed director of the Commonwealth Secretariat's education programme. He will take up the post next July.

Objectives second

The UGC's great debate will be genuinely effective only when it allows for consideration of the needs and objectives of higher education first, and discussion of the numbers second. I believe that such a reassessment might well show that we should be increasing student numbers and educational resources through the 1990s, not reducing them as demographic trends might at first indicate. Technological progress is putting an ever increasing emphasis on high skill levels throughout industry and the service sector and in leisure time activities, pointing to the need for more resources for higher education.

My column last month was called "The challenge of the space age". It is worth remembering that we are already in the space age and that the challenge must be met now. One when the educational establishment takes up the challenge, partially suggested by the UGC, and persuades Government to do the same. It is expected to escape from the jungle of statistics that makes up the numbers game.

Ian Wrighlesworth

The author is Special Deputy MP for Stockton South.



Some local despotism in disguise

The powers of the Scottish Education Department are notoriously despotic. Nowhere is this more true than in the case of the central institutions.

For years they have benefited from the paternalism of the Scottish Education Department; growing while others languished, protected from the severest cuts while others were surgically dismembered. Now the knives are out and we have learned the old lesson that all despotisms turn nasty in the end.

As direct grant institutions, the central institutions have always been open to financial manipulation by the Secretary of State. Recently, however, his powers have been extended and made more explicit. Under the 1980 Education (Scotland) Act, he now has authority to determine the courses, curricula and student numbers in public sector higher education in Scotland. There are no restrictions on his use of these powers; no University Grants Committee, no National Advisory Body, no powerful local authority to intervene, or delay, or raise democratic objections.

This places him in a quite unique position. Only his general responsibility to Parliament masks the nakedness of this "despotism"; and who at Westminster will notice or care about this one small item among the enormous range of his economic and social responsibilities in Scotland?

Increasingly this power is being used quite candidly. In each of the last three years the colleges of art and the Royal Scottish Academy of Music have been forced to operate with fewer staff.

This plan, however, has never been made public; nor have its criteria and objectives been debated or agreed. When challenged, the need for consultation is denied, on the simple grounds that the Secretary of State can do what he likes.

Then six months ago, in a swash-buckling display of ministerial power, Paisley College of Technology was instructed without warning to reverse its long-standing policy of development in vocational social sciences.

Now, at Queen Margaret College in Edinburgh, the governing body is being put under intense pressure to retreat from a formal agreement with this association concerning the fate of four members of staff. Since the governors insist that they must honour the commitments they have given, the SED threatens a series of financial penalties designed to force their hand.

The general message is clear: if governors persist in governing by their own lights, then the SED will make the colleges ungovernable.

Unhindered by all this, the SED proposed to "commandeer the three remaining advanced further education colleges in Scotland, which are run by the local authorities. Thus its domination will be complete. However, to disguise the blatantly despotic nature of this empire we are to have a Scottish-Territory Education Advisory Council.

This is no "MacNab" however. For it will have no authority to discuss funding, no right to set its own agenda. It is difficult to see how it can be any less invisible and impotent than the Council for Tertiary Education, which replaced and which has proved to be a truly paper watchdog.

It is a sad state for a nation which prides itself on its educational tradition and its democratic instincts.

Jack Dale

The author is Secretary of the Association of Scottish Tertiary Education Centres.

Civil service's chief recruiter goes on tour

by Paul Flather

"Well, are you from Oxbridge?" Mr Dennis Trevelyan, the Civil Service First Commissioner, responsible for recruitment, admitted that he was, and immediately all the old fears about Oxbridge bias within the service became apparent.

Mr Trevelyan was speaking to about 20 students from the University of Kent at Canterbury, as part of a new tangle of provincial universities aimed at casting a wider net for the mandarins of the future.

He has already visited the universities in Swansea, Manchester, Exeter, Durham, and Bristol, and will visit Nottingham later this month. Further visits to new universities and polytechnics are scheduled for 1984.

At Kent he moved quickly to dispel fears about Oxbridge favouritism. He said: "It really does not matter which university you come from. The people who mark the papers don't know the sex or university of a candidate."

"I do want to see more people from new universities in the civil service. I don't just want the treble first - I want the good all-rounder, the sort who can come out of the ivory tower, who does not write deathless prose."

The students were also keen to know what happened if their views conflicted with those of the Thatcher government. Mr Trevelyan said

views were important. "What matters is how you arrived at those views and how you support them."

"If you are not interested in politics with a small p, don't come into the service. You will be bored. We don't want political enclaves. If you are secretary of the Communist Society we will say - 'well he's got views'."

Mr Trevelyan was out to rout all the myths that the service was boring, hierarchical, unexciting, dead, against women and modelled on Yes Minister. Pay levels ranging from £5,800 to £8,078 for the fast-stream administrative trainees (ATs) - were never raised, while job security seemed much sought after.

He said, the service wanted people who were well informed, able to deal with varying problems such as the Icelandic fish row, where the Elgin Marbles belonged, and local government reform.

The tour, the first at such a senior level, was organized following the Atkinson report on civil service recruitment earlier this year which expressed concern about the lack of non-Oxbridge candidates entering the civil service.

Last year the civil service found just 24 of the 41 ATs it was seeking, and 17 were from Oxbridge, although they made up just 6 per cent of those taking the tests. This year it had 60 AT vacancies and accepted



47. There are also 2,800 executive officer posts, at least half to be filled by graduates.

The commission has set up a working group to consider reforms in the tests, already reckoned to be about the most sophisticated for graduate recruitment in Britain. They want particularly to follow Atkinson and find ways of recognizing

candidates with a "thrustful and forceful personality" who can nevertheless work in teams.

The Kent students said they found it very useful. "It seems more dynamic than their literature," said one. But another still feared the Oxbridge joke. "Seeing will be believing. Not many from Kent are successful which in itself puts me off," she said.

Tribunal recognizes APT case

by David Jobbins

A county council is to appeal against an industrial tribunal decision handed by a non-TUC union as a breach through in its battle for full recognition.

The Association of Polytechnic Teachers believes that the finding against Cleveland County Council over the refusal of time off for health and safety duties for five of its members at Teesside Polytechnic will help it secure local recognition from other education authorities.

The tribunal was told that the association had a large number of members at the polytechnic, 50 per cent of them in science departments, where the greatest potential risks lay. But the director, Dr Michael Longfield, refused the association's five safety representatives time off to carry out inspections.

Although the tribunal accepted that given a free choice, Cleveland would not have wished to negotiate with the APT on salaries, it found that the Association of County Councils had been involved in negotiations in the Burnham further education committee, where the APT had had a seat

since December 1981.

"In these circumstances we feel obliged to come to the inevitable decision that the respondents (Cleveland) have recognized APT since December 23, 1981," says the tribunal's statement.

The tribunal also decided that the APT had recognition at Teesside on the basis of six years of correspondence with members of the association.

Dr Tony Pountney, the APT's national secretary, said Cleveland's decision to appeal, at the risk of further cost to ratepayers, indicated the pressure to which the authority had been subjected. The association claimed that the advice of the Association of County Councils in not granting local recognition.

"The decision will shock those local authorities in England and Wales which have failed to recognize the new realities of industrial relations in higher education," it said.

The expected rush of local recognition agreements after APT won its Burnham seat nearly two years ago failed to materialize. But the association obviously expects that if the decision is upheld on appeal obstacles

to full recognition at every level will have been removed.

Although the APT won a seat on Burnham, it has never been admitted to membership of the teachers' panel which conducts negotiations with the employers.

Parity with the universities is the main aspect of proposals for the APT's salary claim drawn up by the association's executive for ratification by the national council later this month. No firm mechanism has yet been decided upon, but association leaders accept that more than one stage will be needed. One option would be to extend the senior lecturer, principle lecturer and head of department scales upwards by two or more increments to achieve future parity at no immediate cost.

Leaders of 16,000 university white collar workers are to finalize details of a 10 per cent claim today. The national universities committee of the National and Local Government Officers Association is certain to decide to pursue the claim half as a flat rate payment and half as a percentage to benefit the lower paid. They are also seeking to move the settlement date to April 1 in line with all other campus unions.

Alvey advances programme into two universities

Two universities are involved in the first stage projects shortlisted for large-scale backing under the Alvey programme for advanced information technology, which were announced last week.

Mr Laurence Clarke, deputy director of the programme for the Department of Trade and Industry, named four large-scale "demonstrator projects" to be studied by ICL, GEC, Racal Research and Marconi Avionics.

Six more will soon be commissioned and half of the total will then be picked for support throughout the five-year, £350m programme. Each of the pilot studies will cost the Government between £50,000 and £100,000.

Edinburgh University artificial intelligence department will work with GEC on factory automation. The academic input, which is 100 per cent Government funded, will include plans for an "expert system" for computer-aided design.

These, together with projects for a computer system to explain social security legislation and for a remote inspection system for offshore oil rigs, are the first indication of Alvey's overall ambitions.

The idea of demonstrator projects outlined in the report which led to the Alvey programme has been criticized both for setting over-ambitious targets and not paying enough attention to potential markets. The DTI believe each of the projects shortlisted could be exploited rapidly by the main contractors to open up substantial new markets.

The American computer manufacturer Hewlett Packard have just announced a £10m investment in a new research centre in Bristol, where the company expects to employ 200 scientists by 1987.

The new centre was announced with the blessing of Mr Norman Tebbit, Secretary of State for Trade and Industry, but some British companies fear increasing competition for computer scientists, particularly software specialists, as the output of computer science graduates from British universities declines.

Mr David Baldwin, the American company's UK managing director, said that the new centre would lead to greater contact with British universities. Last year the company gave £30m to American universities to help research, although Mr Baldwin said British universities were a disincentive to the same in this country.

Joint scheme

A big step forward in technicians' education and training in engineering was taken this week when the Business and Technician Education Council and the Engineering Industry Training Board agreed a joint certification scheme for England and Wales.

The scheme will enable trainees who gained a relevant BTEC national or higher national award to be eligible for joint certification, at technician and technician engineer levels.

Once demand had been identified for a course the financial disincentives to institutions would have to be tackled and employers would need to be paid selectively for taking it up.

Mr Alan Davies, Cranfield's academic secretary, said that costing relied on complete delegation to the departments backed by minimal central institutional services. The provision was "market led" in consultation with employers and associations.

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PARTY LINE

Playing the great student numbers game

Report which proposed that there would be 146,000 students in colleges of education by 1990/91 when in 1982/83 a total of only 11,200 were trained teachers, obtained Sir Keith Joseph and the National Union of Students are also participating vigorously in the game with demands respectively that the actual per student be reduced by 2 per cent per annum and that student grants should be substantially reformed and increased.

The prize for winning the numbers game is, of course, money which is why it is taken so seriously by all the players. At a time when money is being particularly fiercely played, relative lack of money means there will be more losers than before, and to one is going to lose, which is why the numbers game is so attractive.

been conducted very much within the rules and assumptions laid down by the Government and by Robbins 20 years ago. I believe that this considerably weakens the hand of those who want to maintain or even increase the level of support for higher education. As long as the Government is not forced to reassess its objectives for higher education, it can always win, simply by insisting that certain financial targets be achieved.

The Government has already shown its determination with the cuts in higher education over 1980/81 to 1981/82 and with the cuts on local authorities and nationalised industries. Nigel Lawson, Mrs Thatcher and now Peter Brooke have shown that whatever damage or loss of quality comes, they will seek by the numbers game of creative statistics to convince the electorate that the numbers game is being played.

The Government's approach to all public spending has been dominated by cash limits and has virtually ignored an assessment of what objective or needs should be fulfilled. The Government must be challenged on this. It is not enough to rely on old assumptions. I hope those involved in higher education will contribute towards this. Arguments about volumes deaden the electorate's mind. Failure to achieve objectives which they support makes them much more critical of the Government's actions. So let us press the Government on this and let us seek to supply them with some of the answers.

The University Grants Committee's letter to the Vice-Chancellors is a good start. However, it is significant that the first two core courses are based on financial and economic assumptions. Once again the numbers game is being played.

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Karen Gold reports from the Association of Metropolitan Authorities' annual conference in Birmingham

Scheme is 'utter flop'

A series of motions were passed by the conference on the Government's Youth Training Scheme, calling for no political or curriculum interference from the Manpower Services Commission, an increased payment to the trainees, a maintenance allowance for all 16 to 18-year-olds engaged in education or training, and an expression of support from the Government for the education service's provision of courses for this age group.

Councillor Bernard Aitha (Lab, Leeds) argued that the MSC's insistence that political teaching and activity for participants in YTS courses would lead to the closure of the course was a dangerous move towards the centralization of the curriculum.

Councillor Ron Anderson (Lab, Brent) said that there was no doubt whatever that YTS has been a complete flop. "YTS may have the honour of being the shortest experiment in history," he added. Despite Brent's moral and political objections to the scheme from the start, it did not want to see it fail, and was giving trainees additional money and off-the-job training to improve it — something which should be adopted throughout the country, he said. But Councillor Paul Ciolek (Con, Kingston) said that parents should take at least some responsibility for supporting their children. "The fact is that £25 (the current weekly YTS payment) is a fairly reasonable amount of money, which their brainy colleagues staying at school trying to get A levels and go to university don't receive."

Authorities row over NAB

The metropolitan education authorities have agreed after a behind-the-scenes battle to keep their three representatives on the committee of the National Advisory Body, which meets this weekend.

Liverpool local education authority wanted both the Association of Metropolitan Authorities and the Association of County Councils to leave the NAB until it provided adequate funding for the advanced further education pool and guarantees that neither standards nor access would decline. The authority withdrew its call after a stormy meeting of the AMA's Labour group before the conference began.

Instead the AMA's annual conference agreed a compromise motion, put forward by the Inner London Education Authority which divided the Tory group on the association. The motion called on the AMA and the ACC to demand adequate funding for the advanced further education pool and to seek guarantees that standards of education and access would not decline.

"This meeting notes with great concern that the proposals of the NAB will severely reduce educational standards and opportunities throughout local authority higher education," it also said.

Councillor Bela Gnanapragasam, of the Inner London Education Authority, proposed the motion and said that the NAB was subject to the pressure on it to provide the resources necessary to maintain standards and access.

Councillor Dominic Brady, chairman of Liverpool's education committee said that his authority supported the ILEA motion and would support remaining on the NAB so long as it protected standards and access, and provided a forum for long-term regional planning of public sector higher education.



Nicky Harrison, chair of the AMA education committee with John Pearman, vice-chair.

al planning of public sector higher education.

"At present there doesn't appear to be a clear, rational and long-term future plan for higher education in this country. The planning that appears to be on the agenda of this Government for the next few years is that higher education will be cut back still further," he said.

"If the AMA, through NAB, can attempt to change the plans, then certainly Liverpool can support it. But at present Liverpool does have some misgivings about whether that situation can be achieved through the NAB."

But Councillor John Pearman, Wakefield, the AMA's education committee vice chairman, and a member of the NAB committee, commented: "I don't think anybody who has examined the original proposals is left in any doubt that they will have the effect referred to." The amendment was defeated.

White Papers 'curb powers'

Two Government White Papers, on rate reforms and on abolishing the metropolitan county councils, were a fundamental change in English constitutional government, the AMA conference heard.

Councillor Mike Bower, chairman of Sheffield education committee, proposed a motion that the AMA education committee view with concern the constitutional implications of the White Papers *Rates and Streamlining the Cities*. "Both moves are an attempt to curb local decision-making powers, which is a matter of concern to all local authorities," he said.

The motion continued to express "grave concern at any plans to curb the power of local authorities to determine the level of expenditure necessary to maintain and improve education standards in this area." It was carried by 30 votes to 14.

The leader of the Inner London Education Authority, Councillor Frances Morrell, pointed out that the second White Paper gave the Secretary of State direct rule and control over the budget of the authority. "I would say beware voting for the principle that Government should take over rights of a local council for an arbitrary period, and then return them later when it has overturned all the policies the local electorate has voted for," she said.

But Councillor Brian Meadows, Birmingham, said that rate increases undoubtedly played some part in inflation, and two elections had been fought on that subject. "If the Government has not been taking these powers, they would have to say to any authority 'Write yourself a blank cheque,'" he said. "I applaud the Government for grasping this nettle, even though it hurts."

Report urges end to MSC

A call for the abolition of the Manpower Services Commission and the replacement of its training initiatives with a training voucher system has come from the Adam Smith Institute.

In a report *Employment Policy*, the Institute says there is little justification for the existence of the MSC. It duplicates functions of the Department of Education and Science and its recruitment and training activities could be more cheaply and efficiently carried out by the private sector.

The report claims that there is considerable evidence that the training carried out by the public sector is twice as expensive than equivalent private sector training.

The dual youth and adult training voucher system proposed by the Institute would replace the United Vocational Programme, apprenticeship support, the Training Opportunities Programme, the community enterprise programme and the New Training Initiative.

"The youth training vouchers would provide a set period of training as under the present Youth Training Scheme, but would buy an extended period of training without secondment to industry and commerce which damages the youth-labour market," the report says.

It adds that private sector entrepreneurs wishing to be involved in training young people eligible for vouchers would be licensed by the Government to do so and would be responsible for paying them an allowance of £25 a week. Unemployed young people not wishing to participate would be ineligible for supplementary benefits.

"Adult training vouchers should be available to unemployed adults, the value of the voucher being limited to the price of the cheapest available courses which provide the needed skills," the report says.

It stresses that the size of the accompanying allowance would have to be less than unemployment benefit so as to ensure that the recipient's desire for training was genuine. An alternative to vouchers would be the creation of a fund of money which would be available to the State.

Options for Employment Report is available from the Adam Smith Institute, 10 Bedford Square, London WC1R 4EJ.

Minister admits to 'rough justice' of travel payments

by David Jobbins

Students have been warned by a minister that plans to change the way travel expenses are repaid will mean "rough justice" for some.

Mr Peter Brooke, under secretary for higher education, told MPs the Government felt that the present arrangements under which separate claims for actual expenses exceeding £20 are submitted by individual students were "extremely expensive" to administer.

Not only did the arithmetic of each claim have to be checked, but the accuracy of bus and train fares verified, a task further complicated because 90 per cent of claims related to authorities other than the students' grant-awarding one.

A change in the system was shelved before the general election but Mr Brooke has firmly put it back on the agenda for 1984. Two options were then being considered: banding which would be based on the local authorities but supported by Conservative students, and a flat rate adjustment for all, regarded as unjust by the National Union of Students.

Mr Brooke said during a standing committee debate on the 1983 grants regulations: "While we hope to maintain reasonable equity there will inevitably be an element of rough justice to any scheme which achieved a worthwhile degree of simplification."

Mr Brooke went on to reject as "simply unrealistic" the National Union of Students claim for the 1984/85 grant settlement. It called for an extra £100m on mandatory awards alone with a further £840m (said to be £400m net) for a guaranteed £30 a week to all further education students.

He said: "If those kinds of additional resources were available for the education service I doubt if many would think that the first priority for using them would be on student support. The public spending climate was getting harsher rather than easier and he could hold out no prospect of significant improvements in students' living standards."

Claiming that Britain's student support system was still the most generous in Europe, he said the Government had to increase the main rate of grant for 1984/85 to £300 a year, but that the Government's student support system was still the most generous in Europe.



Clement Freud: 'dramatic fall'

inflation. "Because of that success it represents only a marginal decline in the real value of the grant as compared with last year... The real value of the main away-from-home grant for students living outside London has fallen by less than 5 per cent over the past decade while the value of the London rate is nearly 6 per cent higher than it was 10 years ago."

But Alliance and Labour MPs were not convinced. Mr Clement Freud, the Liberal education spokesman who had forced the debate, said the purchasing power of the grant had fallen by a "dramatic" 10 per cent since 1979, something no other section of society had had to endure.

He called for a reduction in the age of financial independence for students from 25 to 21 — a demand costed by Mr Brooke at £50m, and asked for local education authorities to be given the power to pay full grants to students estranged from their parents.

And in his first address to the House of Commons on education, Mr Andrew Bennett warned that the cut-back in student support would have its impact on the benefit students have received from higher education. More and more students were seeking part-time work, reducing their ability to study effectively and stopping them from joining in university activities, he said.

● The Federation of Conservative Students this week urged the Government to limit the increase in grants to 5 per cent but called for a significant increase in the threshold at which parental income was assessed.

Grenada fugitives' new base

from E. Patrick McQuaid
WASHINGTON

Refugees from St George's University School of Medicine on Grenada are continuing their studies at two campuses near New York and at sites elsewhere in the Caribbean. Arrangements for a six-week term at Long Island University's Brooklyn Centre and the St Barnabas Medical Centre in Livingston, New Jersey, were made by Senator Alfonse D'Amato, a New York Republican, and the governor of New Jersey, Mr Thomas Kean.

All but seven of the 631 medical students enrolled at St George's have left Grenada, and are accounted for, according to university officials. The "off-shore medical school", one of several established during the last decade primarily for American medical college rejects, has its corporate headquarters in Bay Shore, New York.

Chancellor Mr Charles Modica said: "The tremendous enthusiasm and loyalty of students, teaching staff, and parents was combined with an equal amount of support from government and educational institutions to provide St George's with a unique opportunity to continue."

The facilities, provided on a temporary basis from the two institutions, will be used until the end of this year. University officials will then determine if they will return to their two campuses on Grenada or relocate to another Caribbean nation, said Mr Modica. The Grenadan facilities suffered "some damages" during the conflict but repairs have not yet been estimated.

While first and second-term students will continue their studies in the States, senior members of the class will be transferred to the Kingstown Medical College on the island of St Vincent's, where the university has a cooperative arrangement.

As with the programme at St George's itself, none of the studies are accredited by US academic agencies. The university has, in the past, been criticized by the association of American Medical Colleges and the American Medical Association. Graduates must take special examinations for admission into internship and residency programmes at American teaching hospitals. A cheating scandal recently set back that process.

Across the country, dons and students continue to protest the military invasion, signing petitions and holding demonstrations. The rescued students, however, cheered President Reagan and the troops during a White House reception for them recently. Before leaving for an Asian tour, Mr Reagan chastised the media for referring to the action as "an invasion". He prefers to call it "a rescue mission".



Medical students thankful to be back on US soil

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Colleges face uncertainty

from A. S. Abraham

BOMBAY
Most autonomous colleges in India, operating under a University Grants Commission-sponsored scheme to reform higher education, are uncertain about their future as the initial five-year lease of life granted to them draws to an end. There has been no indication so far whether they will be able to carry on as now or function like any other affiliated college.

At Madras University, however, three of the 10 colleges granted autonomy from the 1978/79 academic year have been told that they can continue with it for another year. The decision follows a mid-term review of the experiment by a special committee appointed by the university. The other seven have so far been kept in the dark about what is to happen to them.

The one-year extension is regarded as a postponement of a final decision on autonomous colleges to give the UGC and university administrations more time to weigh the pros and cons of a highly-controversial measure.

There are significant differences between Australian colleges of advanced education and universities in the approach their students adopt to learning.

According to a study by two University of Newcastle academics, Australian university students tend to use a "deep" approach to learning whereas college students apply "surface" methods.

The academics, J. B. Biggs and J. R. Kirby, describe a "deep" approach as one where the student deliberately attempts to make learning as meaningful as possible, where he or she is intrinsically interested in the subject matter, purposeful and organized in studies, prepared to read beyond the set references, and to relate what is being read about or lectured about to previous knowledge, to search for analogies and implications, and so on.

A "surface" approach, in contrast, involves the student learning the minimum necessary, with as little effort as possible, consistent with sufficient marks to achieve his or her purpose. This is accomplished, the researchers say, by restricting learning to what is judged to be essential for exams, and then reproducing that as accurately as possible, or in a way thought to be what is wanted. The "surface" approach also includes a concentration on detail and fact rather than an attempt to see "the big picture."

Reporting on a study of 2,000 students in 14 tertiary institutions in the Australian universities, Kirby and Biggs note that university students, in general, tended to be higher on "deep" or "surface" approaches to learning, while college students tended to be lower on "deep" and higher on "surface" techniques.

According to Biggs and Kirby, to use a "deep" approach, students need to be intelligent, already knowledgeable in the area, be able to concentrate

overseas news

Conference puts quality of teaching to the test

from Sally Reed

RACINE, Wisconsin

Teacher training and the quality of teaching is the most critical issue facing reformers of public education today, according to a group of experts meeting recently. Initiatives to improve the situation are coming from individual state governments rather than national education organizations or federal agencies.

Michael W. Kirst, a policy analyst at Stanford University in California said: "With all this public attention and enormous softening up of public opinion about the need to make improvements in education the initiative is being taken by the state governments."

Mr Kirst, was speaking at a national conference on "teachers and teaching: problems of quality and quantity." The problems discussed included low pay, poor self-esteem, stress, a shortage in some subject areas such as maths and science, and in some cases, questions of competence.

State initiatives include commissions set up to study specific problems, new salary scales, merit pay, new certification requirements to eliminate incompetent teachers and a reorganization of some teacher training institutions.

Chris Phipps, an education commission researcher, recently found 120 new state commissions and task forces that are responding to the flurry of national reports calling for reform in education over the last few months.

The Wisconsin Department of Pub-

lic Instruction organized a task force on teaching and teacher education which recommended that the state require new grade point averages for admissions to teacher education courses, new certification or licensing requirements, early field experiences for prospective teachers, and a strengthening of the liberal arts and sciences component of teacher preparation.

Richard A. Rossmiller, professor and chair of department of educational administration, university of Wisconsin-Madison and chair of the Wisconsin report said: "The single most important resource we have in schools is the teacher. How they use resources — books, materials, time — determines how kids learn. We have to try to improve the quality of teaching."

The Wisconsin report also recommends that starting teacher salaries should be raised from about \$13,000 to \$18,000. Yet this would cost the state \$68m.

The meeting, sponsored by the Johnson Foundation at Windspeid, followed another conference of the deans of education of 17 research-intensive universities who met to find ways to improve the preparation of teachers in their schools.

Dean John Palmer, of the University of Wisconsin-Madison, said that the group developed new benchmarks of excellence and resolved to find new ways to prepare teachers academically so that they had mastered their subject area, the technology of instruction and analytic and reflective thinking.

Hungary introduces new fellowship system

Hungary has introduced a new system of academic fellowships, aimed at allowing young graduates to obtain an advanced degree earlier in their careers. Under the previous system, no graduate could even apply to start working for an advanced degree until he or she had published several articles.

Under the new procedure, promising graduates will be able to proceed directly to postgraduate studies. This is hoped, will allow young scholars to become less dissertation minded — a concept which pleases the economic planners, who hope that having once obtained a higher qualification, the young scholars will devote themselves wholeheartedly to the research needs of the national economy.

It is popular, too, with students and young graduates, since, as a recent government report highlighted, young graduates in Hungary earn on average less than manual workers of the same age.

Hungary's higher education system is complicated, as far as the awarding

of degrees is concerned. Before the second world war, a system based on the German model prevailed. All university graduates obtained what was known as the "little doctorate", while those who wished could proceed to the full or "large" doctorate later.

After the war, this system was adapted to the Soviet model of a two-step system of higher degrees, the Candidate of Sciences and the Doctor of Sciences. This system arose as a stop-gap measure in the early 1930s, when a shortage of technical expertise throughout the Soviet Union led to large numbers of postgraduate students being provided with a diploma and hustled into essential jobs. Since the new double system means that a doctoral degree is awarded only relatively late in life, there is some pressure within the Soviet Union to have the system changed.

In Hungary, the situation is further complicated by the fact that the first degree is still sometimes termed the "little doctorate". This is the only degree awarded by the universities;

the higher degrees — Candidate of Sciences and Doctor of Sciences — are awarded by the Hungarian Academy of Sciences. The new system, which was made law on October 28 and becomes fully effective from September 1984, introduces yet another rank, that of "University Doctor" between the first degree and the Candidate of Science.

Under the new system, graduates can apply for a "university fellowship", awarded on the basis of a competitive examination, which includes not only the chosen subject of research, but also foreign languages and the usual political-philosophical section. The latter is somewhat liberal in scope, including not only Marxist theory and the history of the workers' movement, but also classical philosophy and the history of philosophy. The fellowships, which are administered by the Academy of Sciences, carry a stipend of higher than the starting salary of the majority of young graduates who go into industry or teaching — and run for three years.

graduates, many would be heading for a "hands on" career in agriculture and industry where the emphasis would be on the application of existing knowledge and techniques in fairly standard settings.

Biggs and Kirby claim that some Australian industrialists have even complained about the "deep" approach displayed by university graduates: they ask too many questions, do not know enough about the details of the immediate context, and want to try out new ways of doing things, rather than sticking with the present system.

Biggs and Kirby argue that academics from both sides should work to promote a "deep" approach to learning, regardless of which staff do the actual teaching. They also point out that if teacher training is to be largely based in colleges of advanced education — as is likely to be the case in New South Wales — this could lead to institutions producing a generation of teachers accustomed to the surface approach to learning. "A likely result of this would appear to be that the bulk of teachers entering high schools by the late 1980s would be likely to be uninterested in their subject matter, prone to use reproductive, short-term learning strategies, and dissatisfied and disillusioned with their own learning experiences as students," the two researchers claim. Fortunately, however, on the evidence Biggs and Kirby have mustered there seems little to justify this conclusion, a conclusion in any case which is likely to be widely disputed in the college community.

Geoff Maslen

Scratching the surface of the deep approach

There were, however, strong faculty differences in the "surface" approach and the faculty mix differed between colleges and universities. Nevertheless, with faculty held constant, universities appear to develop, or attract, students with a "deep" approach to learning, and CAEs students with a "surface" approach. At the same time, Biggs and Kirby point out, some learning environments tend to elicit a "deep" and others a "surface" approach.

"Didactic teaching, emphasis on final examinations in an anxiety arousing context, and the lack of opportunity to pursue particular subjects in depth, are some characteristics of tertiary teaching associated with the 'surface' approach," they write.

"Such teaching alerts the students to the importance of 'getting by', which then duly becomes the intention." As well, they say, students may adopt a "deep" approach to major subject, and a "surface" approach to subjects that are unimportant except as fillers for the degree, or a student may adopt a "deep" approach only when "in the mood", which may not be often.

According to Biggs and Kirby, to use a "deep" approach, students need to be intelligent, already knowledgeable in the area, be able to concentrate

for long periods without being easily distracted, and be able to organize themselves and their resources. While some students are not capable of, or interested in, meeting some or most of these requirements, it is possible to help students change from a "surface" to a "deep" approach, given appropriate conditions.

Although they argue that the "deep" approach to learning is more academically desirable (because the outcomes are better) the researchers acknowledge that to the student concerned, the surface approach may be more desirable if it achieves personal goals with "minimal pain", regrettable as that might be to others. A "surface" approach may also be useful where accurate reproduction of facts and details is academically important, as it is in most undergraduate science courses. Indeed, university students were found to utilize both "deep" and "surface" approaches. Ideally, students should have recourse to both strategies, and the wit to judge which is the more appropriate," Biggs and Kirby write.

Moreover, while a "deep" approach to learning is important in many professions, particularly where the student plans to become involved in research, the "surface" learning in CAEs may be adequate at the pre-service stage.

They say it might also be argued that the "deep" approach is unnecessary in some professional practice. In the case of CAB science

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overseas news

Solidarity trial puzzles Poles

Jerzy Andrzejewski, the author of *Ashe and Diamonds*, who died several months ago, is among the witnesses cited to appear against the four Solidarity intellectual advisers, Jacek Kuron, Adam Michnik, Zbigniew Romaszewski and Henryk Wujec.

The four scholars are specifically accused of the long-term aim of trying to implement "parliamentary democracy" in Poland, which the prosecutors consider tantamount to an attempt to overthrow the prevailing system. Their immediate aims are also said to have included "the struggle against reprisals undertaken on political, ideological, denominational and racial grounds" and the fostering of any "social initiative designed to further respect for human and civil rights".

Leading Warsaw lawyers have expressed themselves considerably puzzled by the indictment — one said that he could not make up his mind whether the authorities wanted to punish them or set up a statue to them.

Specific issues on the charge sheet include meetings with various groups

of university students at which "anti-socialist" ideas were propounded, the publication of underground presses and the circulation of unauthorized newspapers and learned texts; the organization of illicit "students' Solidarity committees" (the forerunners of the "Independent Students' Association" of the Solidarity era) and the sponsorship between 1978 and 1980 of the "Flying University" — an unofficial educational body which, in spite of considerable police harassment, managed for three years to keep up a programme of literary, historical, sociological and economic lectures and seminars to supplement the gaps left in the official university syllabus as a result of censorship.

The indictment also maintains that the accused "unsuccessfully" tried to interest the Polish Academy of Sciences in the "Flying University". Although this is true as far as the academy as an institution is concerned, many individual academicians in fact, gave the "Flying University" their unofficial blessing, and a few even

took part in its lecture programme. In his introduction to the indictment, Colonel Włodzimierz Kubała of the chief military prosecutor's office complained that during the pre-trial investigations, the accused "categorically refused to give any explanations regarding the crime of which they are accused", and that it is therefore proving difficult for the prosecution to predict the line the defence will take. The authorities would clearly like to avoid the adverse publicity of the trial — but the solution proposed at the end of October, that the accused should go into "temporary" exile abroad, has been firmly rejected by all four of them.

The amnesty for Solidarity members who continued their activity after the imposition of martial law, and which specifically excluded the four accused "advisers", and also seven Solidarity leaders now awaiting trial, expired on October 31. This amnesty has now been extended to the end of the year, but it seems unlikely that the accused "advisers" will be able to benefit.



Purity reigns Down Under

from Geoff Maslen

MELBOURNE. Australian university students living in residential halls and colleges are models of sexual propriety, at least when compared with their more loose-living counterparts in the general community.

Indeed, far from being dens of iniquity, Australia's residential halls and colleges might almost have about them the air of a monastic retreat. That appears to be the result of a survey conducted by the Reverend C. A. Honey, master of Kingswood College, a co-educational residence at the University of Western Australia.

For Mr Honey has found that just under half of college students younger than 19 claimed they had had no sexual experience. That figure contrasts with a survey of Victorian teenagers which revealed that only about one in five were not sexually active. A similar survey by a women's magazine made the remarkable discovery that nearly two-thirds of Australian adolescents were no longer virgins at the age of 17.

But, it has to be said, Mr Honey's results rely solely on the responses of the students themselves — and there are no surveys to show how honest students are when they are being questioned on delicate matters like sex.

The survey also turned up some surprising evidence of apparent student naivety. For example, about one in eight students said they did not know what they would do if a pregnancy occurred during the course of a casual relationship and did not know whether they or their partner were taking contraceptive precautions. Almost half of the students indicated they would be prepared to marry if pregnancy occurred in a stable relationship.

Work holds back Finns

from Donald Fields

HELSINKI. Full-time study at Finnish universities is rapidly becoming a luxury, and may soon become the exclusive preserve of wealthy families. To an increasing degree, impecunious students are having to fall back on part-time employment, which delays graduation.

This spectre of regression in an ostensibly egalitarian framework forms the essence of a study commissioned by Helsinki University Students' Union and submitted to the Finnish minister of education, Ms Kaarina Suonio.

The study and accompanying memoranda contend that inadequate financial support, obliging students to do jobs in term time, and a new examination structure, ruling out the simultaneous pursuit of work and scholarship, are retarding academic achievement by poorer students. They speak of a "social split" within the university that discriminates against these groups. That the government's stated aim of boosting standards for students has not been translated into reality is demonstrated by the growing number of students going out to work, even in a period of relatively high unemployment (6 per cent).

According to the study, employees derive short-term benefit from this practice, since full pay scales and hiring-and-firing procedures applying to regular personnel do not extend to students. But the wider community loses in the long run because of the delay in obtaining academic qualifications by gifted young people.

The report argues that if unemployed people were given the 19,000 term time jobs undertaken by Helsinki's 21,000 students, the money released by savings on unemployment benefits payments could be used to ease the strain of less well-to-do students and their hard-pressed parents. Look at the autumn problem is exacerbated by blockages in the student loan payment pipelines.

Barrier this year, a Helsinki student union study found that only 11 per cent of those questioned considered their loan-based financial assistance was enough to cover all costs incurred while studying. Discontent increased with time, as students started to tussle with escalating interest payments on loans.

Triennial biennial elections to representative bodies of Finland's student unions, held on November 8, have illustrated afresh the widespread disenchantment with the political establishment among the younger generation. Out of a total of 453 seats contested nationwide, 233 went to independents.

Nixon papers release delayed

Release of the Nixon White House papers, already set back some two months in order to allow the former chief of state to review 1.5 million pages of sensitive documents, may be on definite hold. Officials with the National Archives and Records Service said a law suit filed by 29 former Nixon aides to block public access to the papers will also forestall the government's approval of the Nixon Presidential Library at San Clemente, California.

The Nixon files have been the subject of several law suits since they were seized in 1974. At that time Mr Nixon signed an agreement with the general services administration, which supervises the archives, which gave him custody of all his official papers. Mr Nixon sued to put that agreement into effect, confronting scholars and journalists who counteracted in the public interest.

Later that year Congress passed legislation, making all White House documentation public property. Mr Nixon's suit to make that law unconstitutional was shot down when the US Supreme Court upheld it in 1977. Archive authorities have removed an estimated 100,000 pages.

Mr Nixon was to have reviewed the remaining papers and filed any claims against release by September. He was granted an extension through November 12 for personal reasons of the action by his former aides. Until he indicates he will make any claims himself, the archives will not authorize ground breaking for the library.

Danes to help Oman set up faculty

from Annelle Hopson

COPENHAGEN. The Arabian oil state Oman is looking for about 40 Danish university teachers to help set up a faculty of natural sciences. The faculty should be incorporated in a university which is under construction.

A representative from the university has been in the country of Oman, which is a member of the Scandinavian countries. The representative from Oman has also visited a couple of universities in Norway and Sweden in

view of establishing other faculties. "It is my impression that the first group of teachers should travel to Oman some time during 1984 and that the first students should start in 1986. The length of the studies is four years. The education will consist of mathematics, physics, chemistry, biology and geology," said Mr Hansen. He believes that the intake of students will amount to 80 annually over the four-year period and this requires between 30 and 40 teachers.

Jon Turney reports from Strasbourg on the Council of Europe's conference "Universities 2000"

Adjusting to a common language

The University Grants Committee's list of questions for vice chancellors this month has only been circulated to universities in the United Kingdom. But few of the general questions listed would raise many eyebrows among college and university principals throughout Western Europe.

That, at any rate, was one strong impression left by the Council of Europe's conference "Universities 2000" held last week in Strasbourg. Representatives of higher education institutions and governments from all 21 member countries of the council were speaking a common language — of research priorities, relevance, retrenchment and reappraisals. For all of them the end of an era of easy money and soaring enrolments meant increasing pressures for change and conflicting demands from outside about the direction.

How much else could academics and administrators from countries as diverse as Finland and France, Britain and Turkey tell one another that was both true and useful? During the conference itself not very much, as the Council of Europe's two-and-a-half day meeting was the first event organized by its standing commission on university problems (CCPU), set up five years ago.

Fortunately the conference working papers prepared in advance, gave a lighter overview of the challenges facing European universities between now and the end of the century. While this brief gave the conference a longer horizon to consider than the seven year horizon of the UGC's exercise, it is still instructive to look at some of the questions thrown up by these papers and during some of the conference discussions which are not on the UGC's list. Some of them imply a very different look to higher education by the year 2000; a look which the UGC barely acknowledges.

In a sentence, these questions foregrounded universities and colleges using different methods to teach new kinds of students how to tackle new problems. In each category many of the changes forecast stemmed from the

assumption that industry, science and technology, especially information technology, would continue to develop on lines already visible.

These changes would mean a need for more higher education. Mr Umberto Agnelli of Fiat called for a much greater commitment of resources to teaching, which he judged "an investment that is both essential and in the long term profitable". While few other speakers believed this would happen, they did believe there would be greater demand from mature students, both for a second chance and for continuing education, from women and from ethnic minorities and migrants.

Such customers would present new demands, both by seeking courses which met their needs and by being more exacting of their teachers. They would want, for instance, more emphasis on women's studies and multicultural studies. Here, a representative of the Dutch directorate-general of higher education and research pointed out that the Netherlands already had coordinators of women's studies in most universities, as well as three chairs in the subject.

Other institutional innovations would be needed for new groups of students, according to Professor John Eggleston of Keele University. He pointed in particular to the need for evaluation of teaching methods. "Many believe the real test of student achievement is surviving indifferent teaching. If we're serious about introducing new categories of students, we must get more serious about teaching standards," he said.

Technology and new working practices would also have a great impact on teaching methods, many speakers felt. Mr Agnelli pointed out that universities had long lost their monopoly on communication of culture to the mass media. But other contributors felt that colleges would increasingly make use of such media to peddle their wares. Mr David Bethel, director of Leicester Polytechnic, argued that new consumers of higher education would want to shop around to see who could meet their needs. Information technology meant that all higher education



Sharing problems: Umberto Agnelli of Fiat (left), Heinz Fischer of Austria, David Bethel of Leicester Poly.

institutions would become more publicly accountable, especially as publication of courses became commonplace. "In 10 years' time the amount of publication necessary to stay in business will increase dramatically," he suggested.

On the same theme, Mr Noel Thompson, under-secretary in Britain's Department of Education and Science, suggested that the most important innovation of the institution best known for publishing courses, the Open University, was not its use of distance learning techniques, but the way course materials were produced. He was pleased that the OU's use of course teams had broken the tradition that every lecturer was responsible for his or her individual course even if there were 100 chemistry lecturers in one country teaching similar material.

"Of course, no one wants to see a centralized curriculum, but course teams have shown they can produce high-quality material for a large number of students and this is not only applicable to distance learning," he said.

This pointer to the industrialization of course production clearly indicated a different pattern of activity for the average academic of the year 2000, especially when taken alongside a new division of labour in research foreseen by many contributors. There was general agreement that universities without research were unthinkable. As Mr Heinz Fischer, the Austrian research minister put it, paraphrasing Marx: "Teaching without research is dead; research without teaching is

mute." But this rhetoric didn't mean that teachers had to be creative investigators throughout a university career.

Several speakers argued for a more stratified system, beginning with shorter, mass entry higher education courses run by teachers who worked to keep up with the literature but were not active researchers.

The elite (though the word was later amended to "experts") would then go on to further study in centres of professional training or possibly in real research. The latter would most likely be national centres, competing for resources with a relatively small number of similar centres in any one country.

What problems would these research institutes address? On this question, some of the tensions between different views of the future became evident.

For Agnelli, they were clearly intended to smooth the path of technological innovation. But a few dissenting voices spoke up to oppose what one of the few student representatives called "the monetarist, technocratic, utilitarian view which is prevalent in this chamber".

As a counter to this, there were calls for new initiatives to tackle new often multidisciplinary problems; problems of the environment, population, and north-south relations — problems often stemming from the advances in technology universities were being exhorted to promote. There were repeated calls for the social sciences and humanities to be protected in the entrepreneurial university of the fu-

ture. For some subjects, as Professor Roland Marx of Strasbourg put it: "adaptation could be another word for death."

On the other main topic of the conference, the Council of Europe's role in coordinating responses to these issues, discussion was rather less elevated. The organizers appeared to have a set of initiatives they wished delegates to endorse — ranging from the foundation of chairs in "Europeology" to encouraging researchers to participate in a council scheme for a European network of centres of excellence, which officials hope will be discussed at a meeting next year.

However, when these suggestions appeared in the final conference document as "findings", a member of the British delegation, Mr Thompson, disputed the implication that they had been debated and approved by the conference. The chairman then agreed to a last minute revision of the conference communiqué emphasizing that all the proposals must be discussed further by the CCPU.

This outcome was clearly a setback for the council, with the Strasbourg meeting going on record as merely throwing up some suggestions rather than making firm recommendations. But most of the British observers felt this was deserved because of the rather heavy-handed stage management of the meeting. Perhaps they could agree with council officials, who stressed afterwards that in such an international gathering, it is the discussions, rather than the conclusions which are most important.

Trading rights across the line

In our continuing series on mergers David Jobbins discusses how the unions are defending members' interests



toward the bottom points on the scale, which is where many polytechnic staff could expect to end up. Some rises were in the order of 10 per cent and more, indicating a figure of £300,000 as more realistic.

The extra cost of transferring staff from the Teachers' Superannuation Scheme, to which most polytechnic staff belong, to the University Superannuation Scheme, to which almost all NUU's staff belong, is even more difficult to calculate. Mr Derek Birley, the new institution's vice chancellor designate, has identified it as a greater obstacle than the salary differentials.

The fundamental problem is that the USS is about 10 per cent more expensive to the employers than the TSS, although in broad terms the schemes are quite similar. The Select Committee reported that the cost of topping up the pensions of polytechnic staff transferring to the USS could be up to £15m and called on the Government to produce a clearer statement of the extra costs.

In the event the Government found the necessary cash for the superannuation problem, thus heading off what many feared would be the first test of the "no redundancy" pledge secured by the trade unions.

No redundancy is the bottom line for the teacher unions. Beyond the fundamental protection of their members' interests in the salaries and pensions areas they are principally involved in setting the ground rules for the academic carve-up which is the driving force behind the polytechnic phenomenon.

At national level the two unions principally involved have agreed on a policy line towards

rationalization across the sectors. The Association of University Teachers and the National Association of Teachers in Further and Higher Education jointly welcomed transitory cooperation where it maintained or extended educational opportunities. But they expressed their determined opposition to attempts to weaken departments and institutions, pledging themselves to industrial action to defend educational opportunities and facilities.

In the Ulster context the two associations last month signed a joint recognition agreement which effectively involved the Naffie's surrender of recruiting rights in advanced further education in the province. The AUT was recognized as the appropriate trade union for academic staff at the new university from September 1985, a year after the institution came into being.

Elsewhere there is no doubt that the AUT would be regarded as the appropriate union for ex-polytechnic staff — at any rate those belonging to a TUC-affiliated union.

In mainland Britain the Bridlington agreement governing disputes between trade unions would bar the Naffie from recruiting in the universities, and equally the AUT from seeking members in the colleges, even if the two associations wanted.

Ulster represents the most complex in terms of inter-union relations, not because of the two main organizations but because of the presence of the "non-TUC" Association of Polytechnic Teachers.

The APT, with some 3,000 members, represents a minority of lecturers in polytechnics in England, Wales and Northern Ireland. In com-

parison, the Naffie claims to have 75 per cent of polytechnic staff in membership.

At Ulster Polytechnic the two rivals have been level-playing in the numbers game, a state of affairs which forced the Naffie to depart from its customary refusal to acknowledge the APT's existence and join with its rival to extract a "separate but equal" negotiating machinery from the employers. Anywhere else this could not and would not be politically possible.

Ulster is the APT's biggest local association, probably because of the polytechnic's green-field origins. There was no equivalent of the local technical college with a history of union organization by the Naffie's predecessor, the Association of Teachers in Technical Institutions.

While the Naffie has been ready to surrender recognition rights at the new university to the AUT the APT is likely to prove less willing to let go.

While the AUT is still engaged in talks with the APT about an agreement similar to one it had with the Naffie on transitional arrangements, APT leaders want some form of longer term recognition from the new institution.

The APT earlier this year changed its rules to permit full membership for staff from any institution where advanced (degree-level) work reached a level of 50 per cent.

At the time it said its aim was to admit to membership staff in some of the colleges of higher education who were clamouring to escape from the clutches of the Naffie, and AUT officials took this on face value as none of their concern.

But that this also opens up the prospect of university membership was not lost on at least some of the APT's own membership.

In England and Wales, the APT's strongholds are in the science and technology departments of polytechnics in towns and cities often with a well-established civic university. Itself well regarded in these disciplines.

In future merger proposals the APT could seem many of its members either snapped up by the local university or rationalized out of the system.

The prospect is of further pressure for union merger to match the institutional mergers. The idea of a single post-school teachers' union has attracted far-seeing union officials and lay members for some time.

But will the polytechnic concept advance that process or put further barriers in its way? Only time will tell.

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Tessa Blackstone



Critics aim a well-placed kick at the sacred cow

A little over a year ago the Labour Party's proposals for post-19 education were leaked to the press. The document in which they were contained was 60 pages long and covered a wide variety of issues from the need to encourage more mature students and make it easier for them to study to questions about the structure of higher education and how it should be governed.

All this was ignored by the newspapers. They focussed on one section only, which was one and a half pages long. There are no prizes for guessing what the topic was. It was higher education's biggest sacred cow: the universities of Oxford and Cambridge. The draft document had somewhat infelicitously referred to Oxbridge as "a major cancer in the education system".

The reaction this immediately provoked was close to hysterical with the likes of Lord Dacre (alias Hugh Trevor-Roper) being wheeled on by the quality press to defend these institutions from such calumny and simultaneously to criticize the Labour Party for committing yet another example of lunatic declarations of policy.

Yet apart from the offending phrase, which was used to maximum effect to demonstrate the injudicious destructiveness of Labour's thinking on this matter, the document contained a number of sensible proposals for reform (of which more later) - reforms considered necessary by many people in higher education who are neither left-wing nor members of the Labour Party.

People who attack the privileges of Oxbridge are sometimes accused of doing so on grounds of envy. It is a little bit like being told that the motivation for attacking extremes of wealth and privilege is envy. Hard to refute - how can one refute it? And all the more irritating to be accused in this way because it is hard to refute.

After all most of us would like to be paid more than we currently earn for doing the same kind of work somewhere else for 24 weeks of the year instead of 30 weeks. Many of us would like to eat good food and drink excellent wine, prepared by others at little cost to ourselves. Moreover most of us would like an elegant office in a beautiful city.

But to admit this does not mean that wishing to change aspects of the Oxbridge system is motivated by pique amongst those who were not educated there and do not work there, any more than criticising Israeli foreign policy implies anti-Semitism.

I note incidentally that the new shadow spokesman on education turned his Whips' speech to his advantage when being interviewed for a newspaper profile, by arguing that he knows better than most just how damaging the system of private schools is. Since he was also educated at Magdalen College, Oxford perhaps he can claim the same for Oxbridge and help out those of us happily educated at little London School of Economics to refute the envy charge.

It is, however, pleasing to note that criticism of the system is not falling on deaf ears. There have been some interesting announcements from the ancient universities in the last few weeks, which suggest that the combination of external criticism and internal pressures is beginning to have some effect.

First Cambridge announces that it is to abolish scholarships and schol-

ships, recognising that their original purpose of providing financial support for poor students of high ability has long since been overtaken by inflation and other developments. They now do little more than confer certain academic privileges on clever ex-pupils from independent schools which in turn use their successes in these competitions to market their wares.

Second, and much more significant, the University of Oxford has announced its intention to abolish the seventh term entrance examination. This was the reform which the Labour Party regarded as particularly overdue because it discriminates against state school pupils, whose schools do not have the resources to provide the special coaching needed to do well in these exams.

Sir Kenneth Dover, the president of Corpus Christi College, writing to the editor of this paper two weeks ago, denied that the decision had anything to do with pressure to admit more young people from state schools. More's the pity. What had motivated the change was dissatisfaction with current procedures.

I assume that part of this dissatisfaction relates to the extra burden of marking entries, a chore about which many Oxbridge academics have been heard to complain. Moreover the honest ones admit that the time given to reading each paper is so small that the claims made by some defenders of the system that it discriminates so splendidly can hardly be sustained.

But Sir Kenneth Dover had a more important point, which is that we should not necessarily expect this change to lead to the same ratio of private to state pupils at Oxford as take place. The private schools will simply transfer their coaching activities to A-level exams.

This brings me back to the other recommendations of the Labour Party, which incidentally were also made by the Leverhulme report. What is needed, is an entrance system which encourages a wider range of applicants than the three good A-levels. It means taking into account both work experience and quite different qualifications.

Such changes are desperately needed to encourage more mature students into the universities. They should be accompanied by courses to help them adjust to the requirements of higher education.

Does one think that Oxford might take the opportunity of changing its admissions procedures to produce something really radical and in so doing provide a much-needed lead for the rest of the universities? We must wait and see.

Meanwhile the other reform that is being considered the abolition of Oxbridge's privileged financial position. In the discussion to get them to change their system of admission little attention is given to the fact that in spite of shorter terms and considerable wealth from endowments the income Oxford and Cambridge receives from the Department of Education and Science and local authorities is higher per student than elsewhere.

We are constantly reminded that the Government wishes to constrain public expenditure. We know that higher education is one of its largest. Here is a legitimate saying that it is being ignored. Is there someone in the Labour Party?

In the first of an occasional series on authors and books Paul Flather talks to Lord Bullock about his political biography of Ernest Bevin

Portrait of the politician with Eurovision

Ernest Bevin first came into Lord Bullock's life more than 25 years ago. A few years after the publication of his widely-acclaimed political biography of Hitler, Lord Bullock was approached by Arthur Deakin, Bevin's successor as general secretary of the Transport and General Workers' Union, and asked if he would like to write a biography of Bevin.

Lord Bullock was already fascinated by post-war international relations and Bevin was the ideal central figure for any study. After producing three large volumes on the man and completing his original mission this month, Lord Bullock says with typical modesty he never realized at the time just how interesting a figure Bevin would turn out.

Lord Bullock's original interest was in that momentous period just after the War when the system of international relations dating back to Europe of the sixteenth century was quite literally put into the melting pot. He reels off some of the great events - the start of the cold war, the Marshall plan, the NATO alliance, the European and Steel Communities, the Schuman plan, the Berlin blockade, the Palestine-Israeli question, the independence of India and Pakistan, the Korean war.

His interest stemmed from personal involvement. During the War he fought his own battles as one of the BBC corps producing 600 commentaries for broadcast each week in every language as part of the European propaganda battle.

In 1945 when the War ended the first thing he wanted to do was to write about the whole experience. He had absorbed great volumes about German bomb shelters and he reviewed all the Nuremberg papers as they came out volume by volume for Chatham House.

The real problem about contemporary history, as he sees it, is not so much gaining access to documents but knowing what happens next in the story. "Political biography - providing you pick the right person - gives a way through all the documentary mess," he said. In Lord Bullock's case Hitler provided the idea. Hitler's story, every major event, and his study in *Tyranny*, now translated in some 19 languages, came out in 1952.

Then came Bevin. In fact Lord Bullock had to wait until January this year to have access to the final batch of Bevin's state papers. But in the mid-1950s he did apply to Anthony Eden for immediate access, granted by special favour, to avoid having to sit out the 30-year rule.

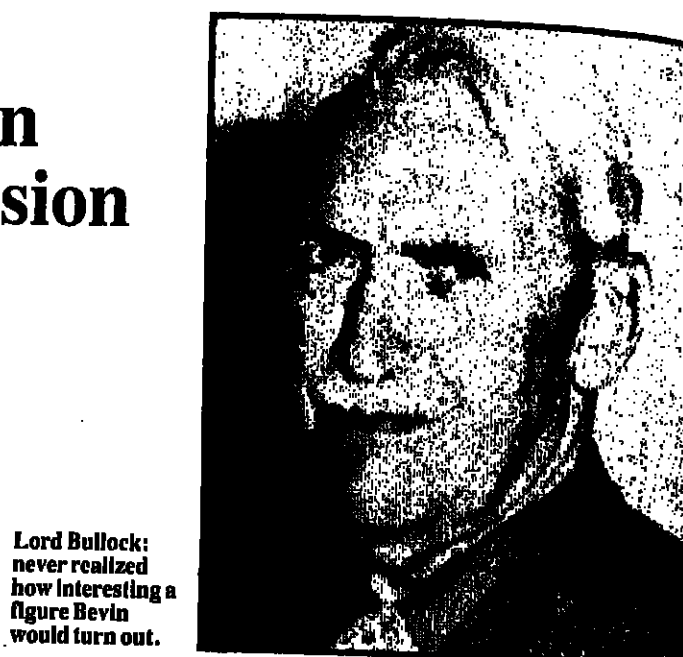
He quickly realised he would have to start at the beginning, and not be camped utterly absorbed in the story of Bevin the trade unionist, which took up the first volume of his biography, published in 1960. (Meanwhile historians fighting the 50-year rule managed to have it reduced to 30 years, but with the loss of special dispensation rights.) With the blessing of Arthur Deakin, paper from Transport House where the staff were only too pleased to gain extra space. No one at the time was apparently interested in trade union history, but Lord Bullock found him-

self going deeper and deeper into the events of the 1920s and 1930s when Bevin was a central figure.

He recalls one very precious find - the diary records of the 1929-31 Macmillan committee on finance and industry, which was the first time Keynes developed his main ideas. Economists were delighted.

In his book Bullock describes Bevin as a "natural Keynesian" - not strictly true, but he did have a "weekend historian" to a man free to work far out - "A man in Eden" in his own words, even though colleagues kept asking if he really would be all right. With the benefit of hindsight Lord Bullock immediately rewrote the book. His style of work is to read through all the papers the night before, to wake up and write. He is a great reviser, using a note-book for cross-referencing to refine judgments on a future draft.

He is the first to admit he has produced a very long book - 896 pages, the heaviest "thick structure" ever. The weight, he points out, is a



Lord Bullock: never realized how interesting a figure Bevin would turn out.



extraordinary story of how one man mobilized a nation for war as Minister of Labour, putting five million men under arms.

Bevin was ridiculed in 1940 for accepting what was thought a lowly post. But as he said later his ambition "was to make the Ministry of Labour as important in wartime as the Treasury is in peacetime". Indeed the Chancellor of the Exchequer was not in the war cabinet.

The second volume, perhaps the first detailed study of the war cabinet not in Churchill's eyes, came out in 1967. Lord Bullock now admits a planning mistake, wishing the two volumes had instead been one covering Bevin and Labour issues, though as he says volume one ended neatly with Bevin poised to enter Churchill's bunker.

By now Lord Bullock was deeply immersed in Oxford affairs. Since 1960 he had been founding master of St Catherine's, now a fully-fledged college, a post he held until 1980. In 1969 he became the first elected four-year vice-chancellor at the very moment the student troubles unfolded, times he recalls with very bitter memories.

He had also in his words become a professional chairman of the Schools Council (1966-69), the Committee on Reading and Literacy (1972-74), the Royal Institute of International Affairs research committee (1954-78), the Advisory Council on the Teaching and Supply of Teachers (1963-65), the inquiry into industrial democracy (1976), the trustees of the Tate Gallery (1973-80), friends of the Ashmolean Museum.

Almost exactly 10 years ago in his last speech as vice-chancellor he warned universities of the hard times that lay ahead and the need to St Catherine's to face a fresh round of student unrest. Now as he wanders the college, past the building bearing his name, past a revered figure in the senior common room, he can listen to students chatting, knowing few will recognize him. He does take great pride in the bricks and mortar that prove his sturdy foundation.

Meanwhile the Bevin research was gathering dust but Lord Bullock did start to work in the Public Record Office as the papers were unlocked. Then in 1980, five years were unlocked, he decided to retire from St Catherine's and gave up all his committees. Over-ought he turned from a "weekend historian" to a man free to work far out - "A man in Eden" in his own words, even though colleagues kept asking if he really would be all right. With the benefit of hindsight Lord Bullock immediately rewrote the book. His style of work is to read through all the papers the night before, to wake up and write. He is a great reviser, using a note-book for cross-referencing to refine judgments on a future draft.

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was to write a book from a new angle, breaking away from the "establishment" Washington world view and providing all the new raw material and data to back his interpretation.

For the first time British papers have been used in tandem with United States papers which were often more frank about the same meetings. Lord Bullock shows that Bevin's approach was not at all the same as the US approach as so often assumed.

Lord Bullock sees planning as an interesting part of any book. Although his is largely chronological, with any as put in as appropriate, he faced two difficult political judgments: Bevin's handling of the Middle East and of European integration, which have both drawn sharp criticism in the past.

The Bullock answer was to deal with each problem straight through from beginning to end, slotting in the material at appropriate stages of the book. Thirty years' hindsight also allowed Lord Bullock to chew over his final judgments on those two points. The time span allowed him to see interesting new material, particularly some produced by Israeli scholars, which he could combine with early material taken from interviews with key actors such as Attlee, Dean Acheson, Lord Franks and Lewis Douglas.

It also marked great changes in the way historians now look at the Middle East and European integration. The Lord Bullock is able to show Bevin's right in continually pointing out that the Arabs could not be ignored in any Middle East settlement; and that the missed opportunity in Europe did not come in 1950 but in 1956, or even later in the 1960s. Another change has been Labour Party attitudes, now far more aware of the limitations of foreign policy.

Lord Bullock is thus able to portray Bevin as a man who did more than any other man of his time for Europe, securing NATO and the Marshall plan at a time when the Soviet threat was all pervasive.

He realized Britain's declining world role, Lord Bullock added, and broke one of Britain's enduring codes by realising that it could no longer keep the peace alone. It needed NATO.

Lord Bullock says that he now does not want to write anything so "heavy" using so many original sources. He was 30 when Bevin became foreign secretary, now he is 68. He is preparing some lectures on humanism, and he would like to write some reflections on Hitler and Stalin.

"I needed really to show I could still do it," he said, again with customary modesty. One of the great strengths of Oxford and Cambridge he believes is that vice-chancellors and college heads remain first-class academics.

"I just wondered if I had become a hollow man who once wrote a good book. This was really a settlement with myself." The 896 riveting pages show that Lord Bullock did not start his own challenge.

Review: Paul Flather

Robbins V: Gareth Williams on the mathematics of student numbers

Making sense of the statistics

The Robbins report did not cause the expansion of higher education in the 1960s. There was massive growth in most countries, and the worldwide total of students trebled between 1960 and 1972. The main achievement of Robbins was to safeguard a known and trusted pattern of courses while gaining political acceptance for expansion in a country where higher education was seen as a quintessentially elite activity. This achievement was due to a small measure to Claus Moser's comprehensive statistics (for which Moser's LSE colleague Richard Layard and the DES chief statistician Philip Redfern deserve some of the credit). It was impossible to argue convincingly against the Robbins recommendations unless you were numerate. Since most of the leaders of British political and cultural life in the 1960s had not been trained to think quantitatively, Robbins and his allies won most of the arguments.

Moser's statistical analysis fell broadly into four parts: (i) a detailed description of British higher education as it was in 1961 and as it had developed since the end of the first world war; (ii) an analysis of the so-called pool of ability; (iii) forecasts of future numbers of students; (iv) an examination of the economic justification of the proposed expansion and the resources needed to implement it.

The detailed statistics of higher education in 1961 ensured that the Robbins recommendations were rooted in then-current reality. By now they are of historical interest only. Nevertheless, they will remain an important primary source for social historians of mid-twentieth century Britain.

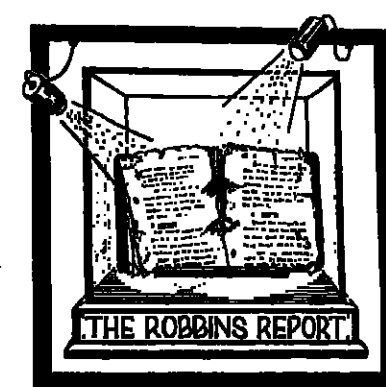
As far as Robbins' economic and financial statistics are concerned, it is of interest to note that if the proposals had been implemented in full, higher education would have accounted for 1.6 per cent of gross national product by 1981. This is the committee's estimate, which includes a generous allowance for increases in national productivity. In the event the figure was about 1.3 per cent of GNP. Thus, expenditure in real terms in 1981 was 20 per cent below Robbins' estimates, while student numbers were almost on target. This suggests that even before the 1981/82 cuts Britain in the 1980s was getting its higher education on the cheap, at least in Robbins terms.

However, in general the economic and financial analyses were superficial, exemplified by the rather cavalier conclusion of the chapter on costs that "we are convinced that no economic consideration need hinder their adoption if we as a nation desire the educational changes they will make possible". The neglect of rigorous economic analysis appears at first sight paradoxical, since Lionel Robbins has a place in any pantheon of the great economists of the twentieth century. Furthermore, the economics of human capital was flourishing in the early 1960s.

One explanation of the paradox is that it illustrates the political acumen of the committee, which was the second main reason for its success. There was a strong and growing belief in the investment value of higher education, best remembered through Harold Wilson's "white-hot technological revolution" speech. However, Robbins realized the ambiguity of much of the empirical evidence of this belief. He did not want the case for expansion to depend mainly on excessive claims about specific contributions of higher education to economic growth: claims that his economist colleagues might subsequently dis-

credit. The question of how well the Robbins statistics have stood the test of time must be examined mainly in terms of the pool of ability, and the projection of student numbers.

The pool of ability analyses showed conclusively that according to the prevalent measures of intellectual potential, a very substantial increase in the number of students was possible without reducing their average intellectual quality. It was based on comparison of participation rates of different social class groups in upper secondary and higher education after stan-



dardizing for scores on IQ tests. These comparisons showed that even among pupils selected for grammar schools, the probability of children from manual working class backgrounds entering degree-level course was less than half that of children of equivalent ability from non-manual backgrounds. The proposals for expansion were predicated largely on the belief that increased numbers of students would be drawn mainly from high-ability working class families.

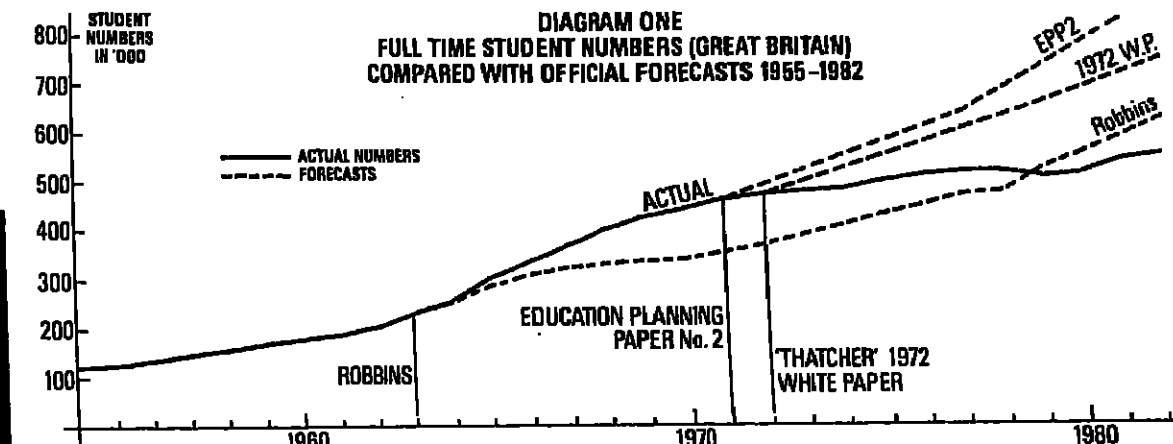
However, this is not what happened, as John Farrar has shown in a heroic paper prepared for the recent (Society for Research in Higher Education) Leverhulme study. Apart from some increases in the shape of students from lower middle class families, the relative position of working class and middle class participation hardly changed between 1961 and the late 1970s. This suggests that unless there have been dramatic changes since 1961 in the distribution of intellectual ability among social classes, the pool of untapped ability defined in Robbins terms remains at least as large as it was then.

What, of course, changed is the political reaction to these disparities. There is a greater willingness today among politicians and educational sociologists to believe that the absence of working class boys and girls in higher education is due to lack of interest in academic education rather than lack of educational opportunity. However, the fact remains that there is a large amount of potential talent not being developed to the full through the education system. Even if it were true that working class youngsters could make the most of their abilities by other means, it ought to be a matter of concern to sixth form teachers and higher education institutions that 20 years after Robbins so many of their efforts are concentrated on a social elite that corresponds only loosely to a genuine intellectual elite. The rise of the meritocracy has not reached very high.

A final comment on this theme is to express surprise that, given the centrality of the pool of ability case to the whole Robbins strategy, and the vigorous debates as to whether more would or did mean worse, there have been so few attempts to monitor the loss of potential talent - particularly during the years of stagnating demand for higher education in the 1970s.

There has been much more replication of the Robbins projections of student numbers. These were an intricate series of calculations involving forecasts of the 18-year-old population, A-level success rates, entry rates to higher education and average length of study. The outcome was a recommendation that there should be places in British universities for 538,000 full-time students by 1980/81. In the event the actual number was 520,000. A 6 per cent error on a 20-year forecast may be considered almost as good as getting within 100 yards of an intended landing site on the moon. However, as Diagram 1 shows, the trajectory by which the target was reached differed more than a little from the path plotted by Moser's statistics.

Such projections have a direct bearing on policy, and the figures have been regularly updated by statisticians in the Department of Education and Science and other crystal-gazers. Between 1963 and 1981 the numbers game was the main subject of higher education policy debate. The annual Public Expenditure Survey White Papers show that government expenditure



plans for higher education consisted essentially of a Robbinsian projection of student numbers multiplied by an estimated average expenditure per student.

Post-Robbins projections of student numbers can be divided into three periods: 1961-71, 1972-80, and 1981 to the present. The period from 1961 to 1971 was one of methodological as well as substantive optimism. Large-scale mathematical planning and forecasting models were developed, mainly at the LSE, making use of rapidly advancing computer technology. The Robbins projection technique based on population and participation rate projections was challenged by more complex models which attempted to analyse student flows from one branch of education to another. These transition models were theoretically sounder but proved almost impossible to handle in practice, and in the event they proved little more useful for long-term projections than linear extrapolation.

Diagram 1 shows that the demand for higher education places was racing ahead of the forecasts during these early post-Robbins years. DES statisticians revised their forecast upwards every year, reaching a peak in a major revision in 1971 when *Education Planning Paper No. 2* forecast 835,000 full-time students by 1981: that is, almost exactly 50 per cent more than Robbins forecast. Many outside observers thought this figure was still too low. It was widely claimed that we ought to have been preparing for a million students (of the traditional kind) by the early 1980s.

In fact, by 1971 the first signs had already appeared that the tide was turning. The percentage of the age group getting A-levels grew very slowly after 1968, and the proportion of school-leavers with good A-level passes who went on to higher education actually fell after 1968. How much this had to do with the worldwide student militancy of the late 1960s, and how much with the declining relative value of student grants, remains a matter for speculation. What is clear is that although few people recognized it at the time, the bubble had burst. Students were beginning to adopt a more critical attitude in their demand for universities and polytechnic places. The diploma disease never reached epidemic proportions in Britain.

The second post-Robbins period, from 1971 to 1980, was in several respects the mirror image of the first. Forecasting techniques got simpler rather than more complicated, and throughout the 1970s forecasts of student numbers were subject to regular downward revisions. The basic forecast of the period was in Mrs Thatcher's White Paper of 1972, entitled *Education: A Framework for Expansion*. This stated that the figure of 750,000 full-time students by 1981 had "been adopted as the basis for the government's longer-term planning in higher education".

However, the White Paper was followed by the 1973/74 "economic crisis" and the growing realization that the declining birth rate would have dramatic consequences for teacher training (a key component of higher education) but above all by stagnation in the demand for higher education from school-leavers. In 1970 nearly 14 per cent of 18-year-olds went on to higher education; in 1979 the figure was down to just over 12 per cent. Even more significant was the fall from 86 per cent to 83 per cent in the proportion of well-qualified leavers (those with two or more A-levels) who went on to higher education. Successive downcast revisions culminated in the 1978 discussion document *Higher Education in the 1990s*, which showed 564,000 full-time students by 1981 and little significant growth there-

after, before the drop in the birth rate began to exert pressure for a sharp fall in student numbers by the end of the 1980s.

It is not difficult to see why the centre of the policy debate shifted away from projections of student numbers to arguments about the appropriate average expenditure per student (which the University Grants Committee started calling by the mumbo jumbo phrase "unit of resource", apparently in an ultimately unsuccessful attempt to mystify DES statisticians about the nature of university costs). This shift in emphasis from student numbers to average costs derived partly from a growing government concern after 1973 to restrain public expenditure generally. However, the 1970s were also years of stagnant demand from the well-qualified school-leavers on whom the universities in particular had concentrated their post-Robbins efforts. It was difficult for universities to mount claims for resources on the basis of pressure of student demand. It was in the interests of the universities, at least in the short term, to divert attention away from numbers and towards the maintenance of quality insofar as this could be considered to be related to the provision of staff and facilities.

The third period of post-Robbins forward planning started in 1980. The Robbins criterion of student number forecasts as the main basis of policy has been rejected. Student numbers are now the outcome of an interaction between (as far as education is concerned) arbitrary decisions about how much the government wants to spend on universities and colleges and (at least until the NAB started to try to come to grips with the problem) almost equally arbitrary claims about how much per student it is necessary to spend in order to provide an adequate higher education.

This shift in emphasis has come about for two reasons. First was the government's economic policy, willing to sacrifice almost anything to bring inflation under control through monetarist measures. Second, however, was the response to the 1978 DES Discussion Document, in which most representatives of higher education interests showed a complacency about future prospects which, in the light of any reasonable interpretation of trends in demand, verged on the irresponsible. The optimistic claims about the effects on universities of their propensity to breed shows that forecasts of student demand are being seen by vice chancellors and senior academics not as morally justified and politically neutral criteria for future planning, but as fortuitous evidence to be manipulated to help support the case for a maintenance of the status quo.

What are the lessons of the Robbins era for contemporary planning of the future dimensions of higher education? The Robbins committee protected the high quality of British higher education, which could well have been undermined by expansion, by proposing a strategy that took advantage of the prevailing political climate. However, in several fundamental ways expansion did not bring the higher education system envisaged by the committee. The polytechnics and the Open University were not part of the Robbins strategy. Robbins himself wrote eloquently about one of his disappointments in his 1981 book, *Higher Education Revisited*. The specialized honours degree has strengthened its position despite hopes that expansion would be accompanied by a structure of courses with the breadth of the traditional Scottish degree.

However, the most important planning lessons of the Robbins era concern criteria for the provision of public

funds. Robbins staked all on student demand. It was taken as self-evident that the provision of higher education should react to the demand for places from well-qualified applicants. The committee rejected alternative criteria based on manpower needs for both moral and practical reasons. While recognizing that employment considerations had their place (there was a famous quotation from Confucius that it is not easy to find a man who has studied for three years without aiming at pay) Robbins thought that these ought to be expressed through students' assessments of their own best interests and universities' independent responses to these student preferences. Essentially the Robbins vision was of a subsidized higher education market.

There are, as is often pointed out, too recent examples, practical difficulties in basing higher education provision on estimates of qualified manpower needs. Manpower forecasts need to be long-term to guide higher education planning, and long-term manpower forecasts were bound to be unreliable.

However, the experience of the past 20 years suggests that the same is true of student demand. Despite the coincidence that the Robbins forecast of full-time student numbers in 1981 proved to be nearly correct, the general experience throughout the period has been one in which forecasts of student demand have been wildly wrong within a few years of being made. If the provision of higher education had followed the Robbins projection year by year there would have been, at a rough estimate, about a quarter of a million disappointed school-leavers between 1963 and 1983. Alternatively, if we had followed Mrs Thatcher's 1972 projection we would by now have 200,000 empty places. The main value of the student demand criterion was that it provided a mechanism which could be easily translated into policy on the basis of regularly revised projections. In a period of expansion institutions were able to respond flexibly to revised estimates through changes in the rate of creation of new capacity.

However, student demand is not at present a realistic criterion. It is not accepted by the present government, which believes that manpower needs should play a more direct role; and it is not accepted without a lot of caveats by institutions, because of the gloomy prognosis of excess capacity which derives from Robbins-type projections made today. However, because of the neglect of attempts at devising a framework for taking economic needs systematically into account, the higher education system is left with few responses to a government which apparently believes in seat-of-the-pants manpower forecasting.

In a time of stagnating demand more attention must be paid to finding acceptable ways of encouraging flexibility and criteria for allocating available resources among the diverse activities which together constitute higher education. We need research into how such resource allocation decisions can reflect the real long-term needs of society, not just currently fashionable concepts such as the present preoccupation with so-called wealth-creating private industry.

In addition, attention must be paid to responsibilities of universities, polytechnics and colleges such as research, continuing education and public service that received relatively little attention in the Robbins report. It is the debate about such additional and alternative criteria that the SRHE Leverhulme study has tried to start. But that is another story.

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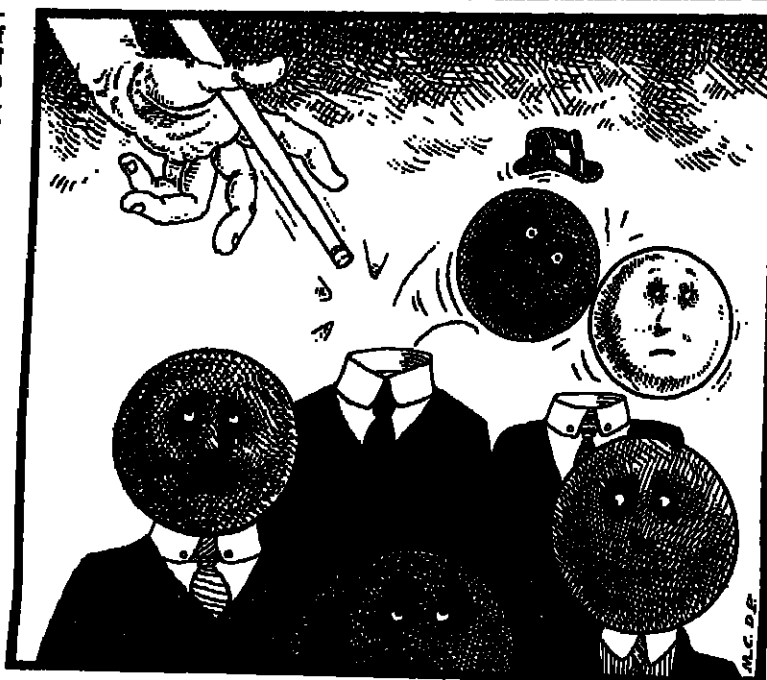
A few years ago, a first year undergraduate provided a crucial piece of help for me in a tutorial. He had discovered an article while browsing in the stack of the university library that led him to say - in a discussion on the geography of cities - that a city was rather like a large number of billiard balls. The remark, and the article, provided the spark to allow me to see a substantial part of my own research in a much broader context and it led me to begin to shift the focus of my future research. It was also one of those relatively rare experiences which illustrated quite dramatically what is taken as some of the obvious values of university life: mutual learning between teacher and student, the value of browsing, the utility of a good university library.

The article was in a volume which was breathtakingly obscure: the 1958 Annual Report of the Rockefeller Foundation. But it contained the valdictory address - of over 100 pages - of Warren Weaver, the outgoing science vice president of the foundation. He argued that there are three types of problem in science - and I believe the argument is also applicable more widely - which he labelled "simple", "of disorganized complexity" and "of organized complexity". And he illustrated his argument by writing about billiard balls.

Simple problems could be described in terms of a relatively small number of characteristics. In mathematical terms, number of variables - say two, three or four. Complex problems involved large numbers of characteristics: hundreds, thousands, many millions, even astronomical numbers. Disorganized complexity involves many entities which are not strongly connected to each other; organized complexity, substantial degrees of interdependence. To illustrate, consider a large billiards table.

An example of a simple system is provided by a single ball. Its "state" can be described by four variables: two position coordinates and two components of velocity. If it receives an impulse from a cue, its whole trajectory could be charted by solving Newton's laws of motion with appropriate initial and boundary conditions. Science, it is argued, took essentially this form until the late nineteenth century. It was very successful, and still is. Many complex problems can be reduced to this "simple" form.

Now suppose there are many billiard balls on the table and one is given an impulse. Many variables are now needed to describe the state of the system and there are too many collisions - too great a degree of complexity - for the equations of motion to be solved by Newtonian means. But the system is disorganized in the sense that the degrees of dependence between its elements, except for the collisions, is relatively small. What Boltzmann discovered, when faced with the real problem of studying the behaviour of particles of a gas, was not a new way of solving the equations of motion, but interesting answers to some different questions. In the billiard table analogy, rather than pursuing the question of what happens to each ball, consider alternatives like: how often, on average, does a ball strike a cushion? The



Billiard cue

Alan Wilson takes another idiosyncratic look at life

answers to such questions turn out to be worth knowing.

Suppose now that we still have a lot of billiard balls, but large numbers are connected to each other with rubber bands. The effects of an impulse are now obviously much more complex: the effects of one collision are communicated round the table through the "organization" provided by the elastic; and hence "organized complexity". The methods which could be used to answer Boltzmann-like averaging questions now break down. Weaver argued, in 1958, that there were no general methods for solving this type of problem, and further that these were the most important problems of modern science. He was using his general argument to justify spending more of his foundation's money on biology rather than physics or chemistry. It will help to illustrate the argument if I first complete my personal anecdote.

What the student meant when he said that cities were like billiard balls didn't know, but what excited me, was that much of my own research used Boltzmann methods to model the movement and location of people in cities. The only originality in his consisted in spotting that a method which was then virtually only used in physics was usable in geography. I had been criticized for this. A planning journal at the time had contained a leading article titled "People are not particles". I was aware, in responding to this, that the method I was using transcended both disciplines and was applicable in each, but Weaver's argument clarified and extended this and also taught me more clearly why some of my problems were not amenable to

these methods - because I was dealing with organized complexity. It helped, therefore, to shift my attention, and in particular to look at other disciplines with potentially similar problems to see if I could again steal their methods. One more preliminary comment is useful before we use Weaver's ideas to look ahead in a more general way. In much academic work, and perhaps predominantly in science, there is an abiding reductionism. There are some virtues in this - when in physics, for example, there is a concern with finer and finer levels of resolution in the search for deeper levels of explanation. There is a similar argument in economics: say how can one understand industries without understanding the behaviour of individuals who run and work in them? But all too often it leads to the neglect of the most important problems. In neural physiology, for example, there is much research on the biochemistry and "behaviour" of individual neurons. The relatively little work on the whole system, the biochemistry of memory in the human brain for example. But it is difficult for people exposed to this scale of work to recognize that the holistic phenomena are quite different and need different modes of attack. There is an argument, therefore, for being more self-conscious about "types" of scientific problem and for encouraging individuals, institutions

and funding agencies to tackle more complex problems, especially "organized" ones, rather than to settle for the relative safety of the simple. There is the beginnings of an explanation of why there is too much "trivial" research in academic life here.

We can conclude by asking whether the results of Weaver's analysis in the 1950s still apply. Should research funding be shifted from physics and chemistry to biology? The intuitive answer seems to be "yes", but the analysis needs to be expanded to cover more disciplines.

The problems of physics perhaps remain mostly "simple" or "disorganized" - though this is not to say that they are not immensely complicated and the results interesting. And the physics of solids certainly contains some problems of organized complexity. The same can be said of chemistry and perhaps biochemistry. Weaver's analysis does seem to be confirmed by problems in biology. The task of modelling the development of an organism or the evolution of species, or the complex controls involved in human nervous systems, are now more recognized as the major research tasks of the future. The argument can now be extended to the engineering sciences and the current concern with information technology. The most difficult and interesting problems in this field are in areas like artificial intelligence, pattern recognition and the design of control systems, all of which have some of the characteristics of organized complexity. The argument can also be extended to the social sciences and the humanities. The structure of a national economy or the spatial structure of a city (with the apparently intractable problems of the "inner" city) can now be seen as problems of organized complexity needing more than traditional methods of analysis. The debates about structuralism in both the social sciences and the humanities also demonstrate a concern with, in another language, the holistic problems of organized complexity.

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On your Marx

Next week, the Socialist Society, a relatively new grouping of radical intellectuals, launches a series of seminars about Marxist thought in celebration of Marx's centenary year. It is, perhaps, fitting that the first seminar, with Ralph Miliband and Bernard Crick, will be on politics and the role of the state. For many Marxist academics are becoming increasingly concerned about a possible fresh offensive against Marxist scholarship.

The allegations of Marxist bias in courses at North London Polytechnic and the Open University are well-documented. Both courses now seem quite safe but what disturbed lecturers involved most was that the issue was raised in an inaccurate way by the popular press and then treated very seriously by governing bodies. These two incidents are being connected with several other examples of attacks on polytechnic courses in the last few years, and recent decisions by the Social Science Research Council to stop funding established radical research groups like the Cambridge Economic Policy group.

These incidents are small in themselves - but they raise important issues which are being talked about openly for the first time since the Gould report in 1979. The difficulty for Marxist and liberal academics is that while Marxism is more established academically than five years ago, the political and economic atmosphere surrounding higher education is much more hostile.

A key argument that is emerging for Marxists is around pedagogy: in much Marx is being taught and often this Marxist input is dishonestly disguised. But David McLellan, professor of political theory at Kent University insists this is nonsense: "Marx is absolutely essential to social science. You could say the course I teach has a Marxist bias. Most courses have a capitalist bias." As a non-Marxist and a university professor McLellan has no worries about political attacks. But other Marxists at polytechnics did not want to talk openly unless it was absolutely necessary.

Nevertheless, they admit that there are real difficulties around teaching, although they would claim that this is because of the success of Marxism and the absence of a credible alternative theory - particularly in courses like development studies.

Yet still the major issue is cuts in higher education. This is more of an issue for Marxists than other academics not simply because of any political view they might feel, but because there are disproportionately more Marxist lecturers in liberal and social studies in polytechnics and further education - thanks to the lack of available posts in universities in the last decade. Some are now worried that a political decision to get rid of Marxism which can be fought against politically (many liberal academics were appalled by Gould's recommendations) will be disguised as economic necessity which is much more difficult to resist.

And finally there is a curious concern expressed by looking at the position of Marxism in higher education in the USA and especially in Japan. Marxism is accepted as an orthodoxy in these countries' social science departments partly because it has no immediate political relevance. In the Socialist Society seminars this winter, while the ostensible talk about the state, philosophy, history, literature et al will be "unashamedly academic", much of the bar conversation will be very political.

As Stuart Hall, professor of sociology at the Open University remarked: "There is not a witch-hunt at the moment but there is a sense of closure: people are much more nervous and sensitive in engaging with controversial issues because the climate is watchful and wary".

David Berry

From the outside looking in...

Following our town and gown article, Peter Collison presents some findings from a study of local attitudes to universities

Anyone who has ever been touched by the spirit of Mansbridge, Tawney and the Extension Movement will have been cheered both by Colin Radford's sentiments (*THES* September 29) about a university's responsibility to its local community and the spirited way he expressed them. I certainly was.

The first part of his article in which he described existing relations between town and gown or, perhaps, more accurately, the absence of such relations, was largely autobiographical and impressionistic. It was obviously intended to provoke and has about it more than a touch of hyperbole. But with due allowance I think many people in universities would judge that Radford's impressions are on the right lines at least.

The location and physical pattern of most university properties are forbidden to outsiders and suggest that academia belongs in general to that class of institution which the sociologist Erving Goffman dubbed "total". And if one trawls through the considerable biographical and autobiographical literature which touches on Oxford, as opposed to gown, is conspicuous largely by its absence.

Take Tom Driberg's autobiography for example. Driberg was at Christ Church in the 1920s. He must, one imagines, have had social contacts with the town. And in his case for two particular reasons. He had a special commission from the Communist party to liaise with local town party members. And given his sexual appetite and its particular direction he must most evenings have slipped across St. Aldate's and into St. Ebbe's in search of working class youths. But Driberg's recollections although full and unflinching contain no references to town people apart from a fleeting mention of strolls by the river with a local milkman.

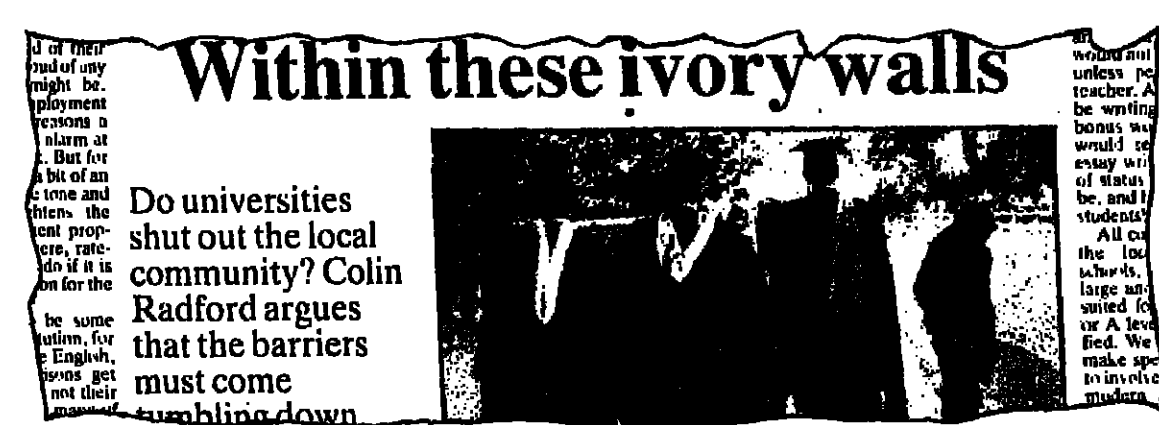
References and impressions of this sort were in my mind in the 1960s when I set myself the task of examining town-gown relations seen from the side of the town. I took three places - Oxford, Reading and York - and conducted surveys on samples of the local population to examine thoughts about, and relations with, the local university. Samples were drawn from the electoral rolls and a number of dimensions and perspectives were employed in the questionnaires. The model which floated somewhere in my mind was Hardy's gloomy picture of town-gown relations in his *Jude the Obscure* and although I did not expect to match the master's prose I thought I could at least buttress myself with some impressive columns of statistics. But the statistics did not come out quite as I expected and *Jude* proved a rather inappropriate model.

Let us look first at the "forbidding" physical presence of the university. In Oxford we took nine university features and asked for each of them if our respondents had ever been in it and, if they had been in it in the previous 12 months. The results are summarized in table one, and column one of this table lists the institutions about which we inquired. For Christ Church the college, and for the three other colleges the gardens are taken as part of the institution. Thus someone who had been to the Meadow but in no other part of Christ Church would be taken as replying negatively. The figure in column four of our survey figures to the total population. Thus we estimate that 31,000 (42 per cent) of the local population had visited Christ Church in the year prior to interview. This figure is an underestimate because the electoral roll contained only of people over 21. And although we were able to update the roll from lists of "corrections" which were made available to us, the roll was still somewhat incomplete because of removals. In the case of the Ashmolean, the University Museum and the History of Science Museum we were able to compare our results with figures drawn from visitors' books. The comparison suggested that for these institutions our survey figures are of the right order. To give some idea of the frequency of visits we present in column five each figure in column three as a ratio of the comparable figure in column two. It is evident that Christ Church is visited relatively frequently while for the Museum of History of Science, which is at the opposite end of this particular scale, visits are relatively infrequent.

At Reading and York we approached the matter by attempting

Within these ivory walls

Do universities shut out the local community? Colin Radford argues that the barriers must come tumbling down



to determine if our informants had ever visited the main university sites and if they had ever seen any of the new buildings, thinking that the buildings may have been seen by respondents who passed the sites without actually penetrating them. We also asked if our informants had been in any of the new buildings and if any visits had ever been paid to premises other than those on the main site. The results appear in table two. Some of the figures in this table appear anomalous. For Reading more people (77 per cent) claimed to have been on the site than had seen the new buildings (57 per cent). For York more people (74 per cent) had seen the buildings than had been on the site (51 per cent). There are explanations for both these apparent inconsistencies. In York, for example, the buildings had been featured on television and the disparity of people who had seen the television programme but had not themselves been on the site.

Looking at these figures as a whole the size of the local population flow into university premises must be a matter of surprise. Universities may have the appearance of forbidding "total" institutions but they do not seem to function as such. Of course it may equally be a matter of surprise and, for some, regret, that 51 per cent of the population in Oxford, for example, has never penetrated St. John's College and seen its delectable gardens. But the comparison of universities with prisons which Radford suggests seems wide of the mark. Architects and town planners have occasionally fallen into the trap of assuming that people behave in ways that the design and layout of buildings suggest they will or should. It looks as though Radford and those of us who share, or have shared, his assumptions fall into the same trap.

Informants in Reading and York who claimed to have seen the new university buildings were also asked if they found them attractive to look at. About three quarters in each place pronounced the buildings to be attractive. There were significant minorities (14 per cent Reading; 16 per cent York) who were of the opposite opinion and others who were indifferent. But it can hardly be argued that the local population in these two places could be said to have a "distorted" view of the university buildings as regards the "desecration" of the landscape. It is worth mentioning that a small number of respondents who expressed negative opinions went further and volunteered that they considered modern architecture as a whole to be brutal or offensive. In these cases the local university buildings "sank" under the weight of this general condemnation rather than for any particular demerits.

Radford says that local populations did not want universities located among them. In York a few voices were raised in opposition to the university but they were overwhelmed in a general chorus of welcome. Of course

motives were mixed, and not all were of the high-minded kind. One enthusiastic promoter of the university who does not seem to have had science and scholarship in mind calculated that Nottingham University spent £2m a year on food alone. He flourished this figure, no doubt in the confident expectation that the catering trade in York would add its voice to the general warm welcome with which the proposal to establish a university was received.

In our surveys we put a number of questions designed to explore in a general way attitudes to the presence of the university. Two of these questions together with the distribution of replies appear in table three and four. The first question asked for a personal judgment. It will be seen that a majority (57 per cent of the citizens in Oxford think that the presence of the university makes Oxford a better place although in these places the majority felt itself to be unaffected either way. Those pronouncing themselves disadvantaged in each place a small minority.

The second question asked for a comparable judgment in respect of the town as a whole. This change of perspective produced large minorities in each case expressing the view that the presence of the university was an advantage to the town. Minorities believed that the university was a disadvantage between 11 per cent and 15 per cent thought there was no balance one way or the other while in York 2 per cent thought the balance lay on the side of disadvantage. For Oxford the comparable figure was 6 per cent.

These matters were pressed further in a series of questions which invited respondents to tell us what they thought were both the advantages and disadvantages expressing the view that the presence of the university occasioned. The replies ranged widely and it is not easy to compress them into statistical form. But if we take only the replies in respect of the town as a whole we found that the major perceived advantages related to economics and trade. Fifty-five per cent of all respondents mentioned this in Oxford, 51 per cent in York and 20 per cent in Reading. Among other aspects which were mentioned by significant numbers were the civic pride which the presence of a university confers and the particular ambience which a university was thought to cast about itself.

The number of respondents who mentioned disadvantages even when pressed to do so was relatively small. But we should mention that in York 12 per cent referred in this context to students. Comparable figures for Oxford were 5 per cent and for Reading 4 per cent. The significant numbers were mentioned after the commencement of widespread student disturbances at the national level and after a number of incidents on the York campus had been publicized in the local press so that even the York figure seen against this background has to be judged to be

very small. Radford draws attention to the general fall in the proportion of students attending their local university and suggests that this is to be accounted for by a contempt which local youth has come to have for the home institution. We do not have evidence which bears directly on this assertion since we were unable to interview the local cohorts of undergraduates. But we put two questions to informants who had children under 11. The questions were confined in this way as we judged that the 11-plus examination which was then in operation would have effectively excluded the possibility of a university place for the majority of children above 11. We asked first if the informant would like his child (or children) to go to university. About 90 per cent in each place (table five) replied yes.

Those who aspired in this way for their children were then asked if they would like them to go to the local university. The proportions not favouring the local institute are shown in table six, line two. It is evident that Reading with 18 per cent has the highest negative response. But it can be confident that we do not put in another way this figure indicates that even in Reading 82 per cent of these parents who have in some degree ambitious for university education would like to see their offspring attend Reading University. Parents at any rate can hardly be said to hold the home institution in disregard.

From replies to other questions we found that in Oxford more than a third of our informants claimed some degree

of acquaintance with one or more of the university dons and more than half of these claimed in addition to have paid or received a home visit with at least one don. We also asked about university teachers' pay. In Oxford 6 per cent declared the dons to be overpaid, although this was more than balanced by another 26 per cent who thought them underpaid. But it is to be admitted that our respondents were not well informed on the facts for when we asked for estimates of actual salaries most of the replies we received were considerable underestimates. The results from Reading and York were somewhat different but by and large they pointed in the same direction.

So far as the local community is concerned our survey results suggest that relations with the home university in these three places are closer and more numerous and that attitudes are more favourable than many people suppose. Of course it may be different elsewhere. But I know of no systematic evidence to indicate this. Those of us who share Colin Radford's enthusiasm for closer relations with, and enhanced responsibilities for, the local community can be confident that we do not have to make headway against either contempt or sullen resentment. On the contrary relations of many kinds are already well established, attitudes are positive and generally there is a firm and extensive basis for further development.

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TABLE ONE

Institution	INSTITUTIONS VISITED			
	Ever visited	Visited in year prior to interview	Visited in year prior to interview	Column 3/Column 2
Christ Church	88	42	31,200	.48
Magdalen	77	32	23,800	.42
Ashmolean	69	19	14,100	.28
Worcester	67	17	12,600	.26
University Museum	59	11	6,200	.2
Sheldonian	50	8	4,600	.12
St. John's	49	14	10,400	.28
Bodleian	48	8	4,500	.16
Museum of the History of Science	22	2	1,500	.08

TABLE THREE

EFFECT OF UNIVERSITY: PERSONAL			
Would you say that for you personally the fact that the university and the colleges are here makes (Oxford):			
	Oxford	Reading	York
a better place to live in?	89	41	38
a worse place to live in?	4	56	57
neither a better nor a worse place to live in?	86	2	4
don't know	1	2	4

TABLE FOUR

EFFECT OF UNIVERSITY: CIVIC			
Would you say that for the city as a whole, the presence of the university and the colleges is:			
	Oxford	Reading	York
an advantage?	77	88	81
a disadvantage?	8	0	2
neither an advantage nor a disadvantage?	15	11	14
don't know	2	1	3

TABLE TWO

VISITS TO THE UNIVERSITY ETC.		
	Reading	York
Have visited main site (Whiteknights Park; Harewood)	77	61
Have visited other main sites	36	7
Have seen new buildings	57	74
Have been inside new buildings	17	

TABLE FIVE

PARENTAL ASPIRATION FOR UNIVERSITY EDUCATION			
Would you like him (her, some of them...) to go to university?			
	Oxford	Reading	York
Yes, (Oxford)	84	75	78
Yes, (Reading)	8	18	13
Yes, (York)	6	4	8
No	2	6	4
Don't know	2	6	4

Fostering the mother-tongue

Nationalism has become unfashionable. Twentieth century history can be seen as a sustained refutation of the populist vision, which assumed a determined identity between place, race, language, culture, and (usually) religion, and as the political triumph of liberal internationalism. Nationalism became totalitarianism in Germany, Italy, Japan and the USSR; grotesque hangovers from the imperial states of nineteenth-century Europe.

With the Second World War, though, nationalism was reconstituted as the positive pole of anti-imperialism. Fusion and others developed a structuralist nationalism which emerged, watered down, as non-alignment in the Third World's response to "Vedra-Cole politics and the cultural imperialism of the super-powers".

The imperial powers who declined dramatically in the twentieth century advanced. Britain and France, having neglected different cultures, France's integralist and resistant system tended to be culture generally, was almost proverbially open worked in America where it originated. In France it was never quite a thesis. Here, assimilation took place at such a low threshold as to seem invisible. Recent changes in European society, not least the revival of a strongly populist right, have called into question many of the old assumptions about national cohesion, restoring the tension between unity and pluralism. Against all the divisions of mass media society, there has developed a powerful centrifugal pull towards national and linguistic self-determination.

On the part of immigrant groups.

The Linguistic Minorities Project was established at the University of London Institute of Education in 1979. Its remit, funded by the Department of Education and Science was a study of bilingualism in England, its geographical spread and educational implications.

The LMP's most striking preliminary is that there are languages now actively used in Britain include in addition to variants of English not just the Celtic, Greek, Hindi, Italian, Punjabi, Polish, Portuguese, Spanish, Turkish, Ukrainian and Urdu.

The crucial recognition of the survey, however, has been that minority language use operates on both horizontal and vertical axes. It is no longer sufficient to pronounce a minority tongue to the received pupils of direct, British descent are now encouraged to explore their local dialect and accent as their immediate given speech - so, it is necessary to speaking context faces the additional dialectal, standard or religious language, the usual written medium. Modern linguistic distinctions between "performance" and "competence" are germane here at a social level: a language, which may well have been born in and literature of a language or the knowledge of it, as well as in English. Mother-tongue teaching has become a crucial issue.

Under its director, Yvonne Kavanagh, LMP set

out to gather raw data about language use and its patterning in different social contexts. Just as standard and non-standard registers of English are socially marked, so variants of the minority language exist in the oral or the written form soon dies. Compilation of European Communities-funded Language Information Network Co-ordination have considerable work still to do - the LINC project not due to report until December 1984 - but LMP have already revealed four crucial socio-linguistic patterns which have been obscured in the past by two language questions. (Even the terminology begs the question: "first" or as in importance?)

- The incidence of multi-lingualism is a great deal higher than was previously thought.
- A large proportion, allowed the choice, and despite the social pressures against them continue to opt for the minority language in domestic situations.
- There is a clear wish and demand for mother-tongue provision in all areas and among almost all the local linguistic minorities.
- Important differences between speakers of the same minority language in different areas suggests that it will be vital to take account of local historical, demographic, social and economic factors.

Linguistic Minorities in England, University of London Institute of Education, distributed by Tings/Tings/Heinemann, Educational, Redhill, Surrey, £2.95.

Brian Morton

David Berry

John F. Kennedy's assassination stands as the most traumatic event in American life since Pearl Harbor, and the aftermath has coloured all subsequent views of his career and his interrupted presidency. For the public at large he remains a fallen hero cut off in his prime, whose untimely death enables us to inscribe our own wishes onto his rough beginnings.

For some years, during the troubled administrations of Johnson and Nixon, this was the tendency of historians as well. Those close to Kennedy were the first to speak; they saw his administration as he would have seen it, wrote the memoirs he didn't live to publish. Even an old salt like Samuel Eliot Morison could conclude his *Oxford History of the American People* in 1965 with some wistful bars of music from *Camelot*. But as the Vietnam quagmire deepened, Kennedy's role in inflating America's involvement came under increasing scrutiny. During the same period, Lyndon Johnson's legislative wizardry on domestic issues reflected indubitably on Kennedy's numerous setbacks in Congress.

According to the new revisionist consensus among journalists and historians, Kennedy's leadership was both too timid and too bold. The continuing popular adulation of Kennedy, especially among blacks, had to be attributed to the family's genius at public relations. John Kennedy's success seemed a triumph of style over substance, rhetoric over reality.

But this explanation does little to account for the shattered hopes and sense of loss that followed Kennedy's murder. As a research student in Cambridge at the time, I could not witness the days of national mourning at home, where continuous television coverage eased the numbing horror and fear of the future. In Cambridge, small groups of Americans, cut off emotionally from their English friends, huddled together like orphans of history, as if their country had just gone down in a plane. It was an age of innocence, a time when political assassination still seemed unimaginable. A decade of turbulence was yet to come.

Though Kennedy was adept at attracting publicity as a member of Congress, there was little in his early record to overshadow his rise to national stature. At the time of his death, Kennedy's liberalism was still of recent vintage. As a Congressman and Senator after 1946 he was never a legislative insider, and his brand of *Realpolitik* and hard anti-communism did little to ingratiate him with the progressive

Nerves on the New Frontier: twenty years after Dallas, Morris Dickstein

A triumph of style over substance,



A Secret Service man jumps over the back of the car bearing the assassinated president. Right, the lying-in-state in the Capitol, Washington DC.

wing of his own party. He spent several years before his 1960 nomination courting liberals and intellectuals—the people who distrusted his manipulative, reactionary father and were loath to forgive the son for not speaking out against one of his father's friends, Joe McCarthy. The New Deal liberals owed their first allegiance to men like Adlai Stevenson and Kennedy was trying to capture the presidency on his Hollywood good looks and his father's wealth and connections. The ruthless energy of the Kennedy clan was already a legend. As far as blacks were concerned, Kennedy entered the 1960 race as the least favourite among all the Democratic candidates, a man whose record showed little deep affinity for civil rights.

Despite his Irish ancestry, Kennedy was also an Anglophile, whose favourite reading was David Cecil's biography of Melbourne. A Whiggish elitism sustained his belief in strong, urbane leadership and his suspicion of popular movements fuelled by moral or ideological fervour. His presidency was a period of popular awakening and mass protest, especially on civil rights and the dangers of nuclear war. These movements were more religious than radical, yet Kennedy always sought to undercut them or harness them for his

own political cause. Kennedy was attractive precisely as part of the same awakening, which his hopeful rhetoric helped encourage. Kennedy's show of vigour and activism contrasted forcefully with the phlegmatic mood of the Eisenhower years, when businessmen were in the saddle and America's social problems were swept aside. In the aftermath of war, a wave of suburbanization and an improved standard of living brought contentment to the middle class, and left the underclass quiescent and largely invisible. Belonging to the old New Dealer became scapegoats for the frustrations of a new bipolar world—the cold war. A series of recessions in the 1950s left the economy sluggish, and Kennedy promised "to get the country moving again". While Nixon accused him of "downgrading America", Kennedy promised dynamic leadership. But like other cold war liberals, Kennedy yoked domestic renewal with international activism, promising a strong military, vigorous anti-communism, and aggressive competition with the Russians. A not-invisible "missile gap" became one of Kennedy's most effective campaign themes, like Reagan's later "window of vulnerability".

Kennedy's cold war attitudes in the 1960 campaign were hardly distinguishable from Nixon's. Like Nixon he

had entered Congress in 1946 as a zealous anti-communist, eager to root out left-wing influences in labour and government. Echoing his father's animosity towards Roosevelt, he accused Polaris at Yalta, and he repeatedly attacked Truman for stunting on military preparedness.

Kennedy's defenders have always argued that he outgrew this crude jingoism long before he became president. But Kennedy's first two years in office witnessed a sharp intensification of the cold war: the disastrous Bay of Pigs landing in Cuba, an abortive summit meeting with Khrushchev in Vienna, a festering crisis in Laos, the addition of billions of dollars to Eisenhower's defence budget, a virtual obsession with counter-insurgency to combat wars of national liberation, a near-mobilization for nuclear war over Berlin in 1961 and the Cuban missiles in 1962, and a gradual escalation of America's commitment in Vietnam. At the same time Kennedy pursued many liberal initiatives vaguely foreshadowed in his electoral campaign and his astonishingly eloquent inaugural address. Programmes like the Peace Corps, which became a rallying point for young Americans all through the 1960s, and the Alliance for Progress in Latin America, which unfortunately did little to prevent the spread

of military dictatorships, were the products of Kennedy's "rhetoric of crisis idealism", as one historian has called it — his appeal to his fellow citizens to "ask not what your country can do for you — ask what you can do for your country".

The young people influenced by Kennedy may have taken him more seriously than he intended. The freedom riders, sit-in-organizers, and civil rights marchers — along with the student radicals who put together the radical Port Huron Statement in 1962 — kicked off a decade of social protest from which he himself recoiled. Yet it belongs in part to his own legacy. Nothing was more crucial to Kennedy's administration than the tone he set: a mixture of witty sophistication, cool pragmatism, and high moral purpose. As he stood hatless and cool in the winter cold during his inauguration, announcing that "the torch has been passed to a new generation of Americans — born in this century", Kennedy was flaunting his youthful energy, his sense of being put to the test, his sombre readiness to face the future. Surrounded by old men who were passing from the scene, he sounded the clarion of generational politics that would be heard from other lips throughout the 1960s.

Critics have shown where Kennedy's deeds defaulted on this noble vision or

and Alan Wolfe (below) offer contrasting views of the 'Kennedy years' rhetoric over reality

gave it an imperial colouring, but they have not weighed the effect of Kennedy's style on a nation eager to be renewed. Without social institutions to provide the forms of continuity, America has always been remarkably sensitive to the rise of its leadership, especially with the growth of mass communications. Much of what Kennedy did was based on cold calculation. He cultivated artists and intellectuals as pendants to his royal court, and in an open appeal to the verdict of history. He longed for the kind of diss even money couldn't buy, for he himself, as his strong defender Norman Mailer complained, had "no imagination", nothing of "the kind of mind which can see a new solution to an old problem". The effect of this unprecedented patronage was exhilarating — as time would show — in the area of civil rights, where the resistance was most fierce.

But the demons Kennedy helped unleash were not easily to be recalled. While Kennedy and his brother Robert counselled restraint — and King tried to explain "why we can't wait" — the movement for integration, jobs, and voting rights, stalled since the landmark Supreme Court decisions, had taken to the streets. The beatings and confrontations at lunch-counters, bus stations, schools and college campuses were flashed around the world. Kennedy's dream of national grandeur was foundering in shame and blood. Blacks and whites marching non-violently in Southern towns and cities were assaulted, set upon by dogs, thrown in jail. Black homes were fired upon, their churches bombed.

What followed was Kennedy's finest hour. He had already proposed sweeping civil rights legislation in February 1963. But as the world watched Bull Connor's police dogs attack black children in Birmingham, Kennedy was forced to act in a more decisive way — to exert the moral authority of his office instead of compromising with the power brokers in Congress. On June 11, a hundred years after the Emancipation Proclamation, Kennedy addressed the nation on the denial of elementary justice to its black citizens.

Like other cautious leaders driven to a bold course of action, Kennedy evoked the ferment of popular unrest to frighten his audience, to appeal to their prudence as well as their conscience. "The fires of frustration and discord are burning in every city, north and south, where legal remedies are not at hand. Redress is sought in the streets, in demonstrations, parades, and protests which create tensions and threaten violence and threaten lives."

In the next few days he brought far-reaching new civil rights proposals before Congress. But Kennedy genuinely distrusted popular pressures which originated outside what he defined as the political system. That summer he tried to head off the great March on Washington and, failing that, sought to seize its leadership and deflect its direction. But a significant divide had been crossed. The day before his civil rights address, Kennedy had delivered a daring speech at American University calling for arms control and an end to the cold war. The next month his negotiators signed an agreement in Moscow with the Russians and the British halting atomic testing in the atmosphere. In September the treaty was ratified in the Senate by an overwhelming margin. Ever since the terrifying missile crisis the

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ple. Kennedy was a spirited latecomer to a cause which Johnson felt in his blood and marrow.

Partisans of the Kennedys have always insisted on their capacity for growth. This was demonstrated more dramatically in the last years of Robert Kennedy's life than in his brother's truncated presidency. Nevertheless, the JFK of 1963 had come a long way — had come to deserve both the fervent gratitude of blacks and the grief of a shocked nation. (Even today, black shopkeepers often display pictures of Kennedy and King side by side.)

Kennedy was killed just when his achievements in office had begun to match his soaring words — when the image and the reality had begun to coincide. For many years the nation continued to feel the impact of his policies and his example. The activism which opposed the war in Vietnam was as much his legacy as the war itself. Along with the Peace Corps Kennedy gave America the Green Berets, along with civil rights he left his obsession with Castro and his ruthless political style. The toppling of Khrushchev in 1964 and the long Soviet arms build-up can be traced to his great "victory" in facing down the Russians during the missile crisis, a triumph which has persisted as a dangerous model of nuclear brinkmanship ever since.

Kennedy helped legitimate both a mechanism and a compassion which were missing from the complacent Eisenhower years. For nearly three years he took America on a roller coaster ride while preserving its essential stability, perhaps the last stability many of us can remember. This is the fundamental paradox of our recollections of the Kennedy years. Compared to the stagnant Eisenhower era it was a period of constantly unfolding crises at home and abroad, from Laos and Berlin to Cuba and Birmingham. Yet it is remembered as a golden age and a period of national reawakening. Kennedy and Johnson brought postwar liberalism to a test it both passed and failed — passed in its recognition that American society was not the best of all possible worlds but one urgently in need of reform, and failed in its misguided attempts to export that spirit of renovation to other parts of the globe.

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Brothers in power: Robert (left) and John confer beneath a portrait of George Washington

understand what it is doing than the flexible and covert government brought into being by a liberal administration in the early 1960s.

Writers as diverse as Henry Fairlie and Garry Wills have blamed Kennedy's failure on his insincerity. Schooled in a storybook reading of British history, Kennedy viewed himself as a disinterested Tory bringing enlightenment to the labouring masses. Yet the public service ideology of John Buchan, when mixed with an appreciation of Walter Bagehot's need for a "disinterested" government, came out differently in America than it might have in Britain. There is little deference in American political culture and even less respect for class and tradition. Kennedy's liberalism and intellectualism translated into elitism and arrogance, making Ronald Reagan's common sense wisdom and modesty seem populist by comparison.

For a prosaic and materialistic people, Americans have a rich and active fantasy life. A surprisingly large number of them believe that their country never wrongs but is frequently wronged, helps others out of generosity without asking a price, supports democracy throughout. The Third World, is the last bastion of peace while all other states prepare for war, and has more domestic freedom and equality than any other society on earth. There are two kinds of politics in America: the politics of reality and the politics of fantasy. John F. Kennedy, alone among all postwar presidents, seemed to understand that the world did not work the way American fantasy proclaimed it did. Yet he refused, time after time, to play the role of educator and statesman, depriving the United States of its last chance to wake up from its extraordinary self-delusion. Fantasy has now won its triumph in America, complete with movie stars and Hollywood actors.

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illusions

broth of faith. Kennedy's first act as president, announced in a press conference the day after his election, was to reappoint Allen Dulles head of the CIA and J. Edgar Hoover chief of the FBI. As the new administration moved to fill its available seats, an unmistakable pattern appeared: loyal service to the Democratic Party and liberal principles meant exile to minor or symbolic positions (Chester Bowles, Adlai Stevenson, John Kenneth Galbraith), while Republicanism, talent or advice, Kennedy rewarded with real power (Douglas Dillon, Robert McNamara, John McCone). Here the contrast with Ronald Reagan — who meticulously removed every Democrat he could find from even the lowest office, replacing them with the bottom of the right-wing barrel — could not be greater. Why is it that liberals like Kennedy would automatically move to appoint a conservative (Byron White) to the Supreme Court, when a conservative would never be expected to appoint a liberal? The aggressive self-interest of American conservatism lives off the walling insecurity of American liberalism. Ronald Reagan's certain conviction that all his ideas are correct and all his opponents misguided is surely his finest hour — but by then it was too late. Three years of military rhetoric and cold-war adventurism had created a consensus around a simple-minded anti-communism that could not be broken. Indeed, the Kennedy administration bears more responsibility for the persistence of cold war reflexes in the United States than any other. Ronald Reagan, whose record to this point is considerably less militaristic than Kennedy's, makes no effort to claim that he is anything but a small-town chauvinist. Kennedy made larger claims to internationalism, making his failure to dent America's instinctive parochialism a more serious

arts of image-making as a surrogate for political sophistication.

One has to admire Kennedy for the thoroughness of his political management. It was a stroke of genius to invite Pablo Casals to the White House, even if Kennedy's own taste in music leaned toward the smoothness of popular songs. Any other president, after meeting Norman Mailer, would clumsily praise his most famous novel, *The Naked and the Dead*. The Kennedy men, having thoroughly researched the matter, discovered that Mailer himself preferred *The Deer Park*, which the President then casually mentioned. To throw out the first ball at a Washington Senator's opening game, Kennedy practised for hours so that his toss would impress the country. He even had the grass in Washington painted green for his inaugural, although a sudden snowstorm buried it all. The lack of concern for political ideas in this administration was more than matched by its devotion to political technique.

Compared to Truman and Eisenhower, both of whom seemed to belong to an older and vanished America, Kennedy's administration stands out as a first truly modern presidency of the postwar period. Older America valued self-reliance and incorruptibility, while modern America speaks of efficiency and accomplishment. Politics was an art in the one, a science in the other. Power was suspect and circumscribed in the old order, sharpened and exercised in the new. Whereas to old-fashioned legalists, policy had to be shaped within the rules established by the Constitution, to Kennedy and all of his successors the Constitution would be fitted to accommodate the dictates of policy.

John Kennedy and his intellectual sycophants worked assiduously to de-legitimize such "antique" ideas as caution, the separation of powers, localism, and open government, substituting in their place action, coordination, impatience, emergency and charisma. Kennedy's legacy to Amer-

ican politics was to preside over the transition to an entirely new conception of the state, one marked by secrecy, rule-breaking, press manipulation, lying, intellectual corruption, and arrogance.

Is there a plan to brief and brain-wash key press within 12 hours or so? reads a note in Kennedy's handwriting that was evidently written just before the Bay of Pigs invasion. If the Kennedy administration gave its policies the same attention to detail that it paid to its efforts at secrecy and manipulation, it might have had a few successes. But how exactly do you tell the American people, who like to think of themselves as fair and decent, that you are planning the assassination of a foreign head of state? What is the best manner of telling the minority constituents who voted for you that you are attempting to take the steam out of their protests because you want the support of Southern Congressmen? Because the administration could not publicize its real objectives without creating a scandal, it simply chose to keep them secret.

There was a time in American life when conservatives stood for the distrust of power and liberals spoke of the need to expand the scope of government, to legitimize the modern notion that the pursuit of power is its own justification. Unfortunately for liberalism (and the Democratic Party), expansionary visions of power have proven far more compatible with the agenda of the right than of the left. The state apparatus which Kennedy was instrumental in creating has been put to its fullest use by Ronald Reagan. The liberal theorists around Kennedy were so intent on accumulating power that they neglected to consider what it might be used for.

The American right is not so myopic. It knows that Americans want both to preserve their illusions and innocence about the world while also poking their noses into the affairs of other states. No more appropriate mechanism has been discovered to enable a society to meddle where it can yet also pretend that it does not.

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For the generation that venerated John F. Kennedy, Ronald Reagan's presidency is sheer anguish. In a mere 20 years, youth, liberalism, intelligence, Harvard, urbanity, and diligence have given way to age, conservatism, rigidity, California, and laziness. In the age of Reagan, a nostalgic warmth has settled over all previous postwar presidents, even including Gerry Ford. In part this is due to *Poole's Law* (after the Oxford historian), which holds that all presidents are worse than their immediate predecessors. But it is also a contrast between a decade that was innocent, if dangerous, and one that has become more cynical, if equally as dangerous. Yet despite the obvious contrast between the Kennedy presidency and the Reagan experiment, there is a direct line of descent from Kennedy to Reagan, an almost natural inevitability. When we judge the Kennedy legacy 20 years after his death, Ronald Reagan must be viewed as one of its major components.

Reagan, the only borrowed from the Kennedy era, like supply-side economics, like the techniques of image-making and artificiality that Kennedy began. The legacy is also indirect: Kennedy's apostasy and watered-down liberalism made more attractive Reagan's self-interest and doctrinaire conservatism. The Reagan years complete a cycle that the Kennedy years began. John F. Kennedy never accepted the legitimacy of his own power. When pressed by his liberal advisors to explore new areas of policy, his rejection, in both domestic and foreign affairs, was to claim that the country was not ready. For example, Senator Mike Mansfield, in 1963 urged Kennedy to get America out of Vietnam before it was too late — sensible advice, one would think. "If I tried to pull out completely from Vietnam," Kennedy replied, "we would have another Joe McCarthy red scare on our hands. The president's remark betrays the

feeling that liberals and Democrats have no rightful claim to govern the United States. The real power in America, Kennedy seems to be saying, lies in that subliminal American ideology that propels reactionary know-nothings to the limelight. Against that, liberals are impotent, temporary fillers on an occasional leave of absence from power. Of the Kennedy years, Kennedy felt, and there is remarkably little that I can do. No president in postwar America developed more ingenious reasons for why action could not be taken on different matters.

Kennedy was probably correct in his assessment; had he withdrawn from Vietnam, the American right, as is its wont, would have used every demagogic trick in its abundant arsenal to attack him. If we take his assumption seriously, we are left with a puzzling question: if America is so conservative, why would a liberal seek to govern it? Postwar American politics have been coloured by one unusual development. When the last war ended, the country was prepared to move sharply to the right. This it did, with the exception of business gained at the expense of labour. The military became an institutionalized, encephalized, place-holder for the first time in American history. Social conservatism, and economic orthodoxy replaced the desire to experiment that had characterized the New Deal. But if Americans wanted conservatism, they did not trust conservatives. Democrats were elected to preside over the containment of the Roosevelt legacy. Position, in short, developed a unique form of conservative ideology, it was called liberalism.

For all Democratic presidents from Truman to Carter, an uneasy, corporate, and conservative liberalism was the only rhetoric made it extremely uncomfortable. This was especially true for John F. Kennedy, whose presidency stood midway between the postwar conservative period, when the dominant force presented itself, and the liberal

Cynical heritage of the age of

Reagan, when it was resolved in favour of an unambiguous show to the right. Had Truman lost to Dewey or Kennedy to Nixon, Reagan never would have become president. Conservatives would have taken the blame for the failure of conservative programmes, leaving liberals free to sharpen their ideas while in opposition. But politicians like Kennedy wanted to win. Like Lenin, they hoped that power would come first, and a change in political consciousness later. (Wait for my second term, Kennedy informed all who pressed him.) Yet once in power, Democrats were essentially paralysed. If they tried to stand for the New Deal, they risked unpopularity. Yet if they opted for "realism" and "pragmatism", they not only seemed opportunistic, but wound up strengthening the hand of their opposition. Having rejected any effort to govern as liberals, they had no choice but to run the country as conservatives. Yet since he was not a real conservative, the net effect of his approach was to cover his conservatism with an ideology of liberalism. (Only in America could such a preeminently capitalist programme as the World Bank or business subsidies be denounced as socialism.)

No other area of public policy more dramatically illustrates the perverse nature of the Kennedy legacy than fiscal policy. Kennedy was surrounded by economists who told him that balanced budgets were a relic of the past. Yet the president was unwilling to venture into even moderate Keynesian orthodoxy. Even after Kennedy made headlines by endorsing Keynesian economics in a 1962 address at Yale University, he turned around a few months later and endorsed the anti-Keynesian orthodoxy of the Economic Club of New York. The president, as Arthur Schlesinger

Jr. later wrote, "simply did not want another major fight with business."

Torn between his desire to appease business and the hectoring of his own economists, Kennedy finally settled on a compromise. He would deliberately unbalance the budget to stimulate the economy but not by increasing government spending (preferred by liberals), but instead by cutting taxes, especially taxes on business. The Republican economist as a "fiscal revolution" was hardly a shift to the left. Keynes had hoped that public action could direct private appetites; Kennedy's approach was to try to use private appetites to expand public choice. The Kennedy administration, having rejected efforts to expand the welfare state, could only reward its voting constituents through economic growth. Growth presupposed business confidence, and in order to obtain it, Kennedy became the single most pro-business president until Ronald Reagan came to power. Economists on Ronald Reagan's right flank point to the Kennedy tax-cut as proof that their ideas can work.

If John Kennedy's economic ideas could be expropriated with little attempt at camouflage by the Reagan administration, so could his notions about foreign policy and national security. And once again, the reason has much to do with the dilemma of a liberal governing a conservative society: as it does with anything actually taking place out there beyond America's borders. The first principle of Kennedy's foreign policy was never to appear weak — not in the face of external enemies, but against the Republican Party. Kennedy's was America's most unstable foreign policy until the last three years. Twice the administration raised the spectre of nuclear war, once over Cuba, the other over

Berlin. The defence budget shot up, including enormous increases for such Reaganite tit-bits as civil defence and covert operations. A military draft was instituted, while a martial spirit was cultivated. And, most bitter legacy of all, the Kennedy administration made the dramatic commitment to increase American forces in south east Asia that destroyed whatever residue of liberalism America had left.

"I used to ask my brother each week about whether he liked the job," Bobby Kennedy once commented. "And he always answered he did. During that period of time he'd say, 'what a fantastic job it would be if you didn't have the Russians.' Kennedy's lament could apply to all post-war American presidents, none of whom (save perhaps Nixon) were ever comfortable with the fact that America might not have been the only victor of the First World War. America is the most parochial of empires. Perhaps the single most lasting contribution a president could have made would have been to inform the American people about the actually existing complexities of the world they sought to rule. Kennedy did make an effort to do so in June 1963 at American University — surely his finest hour — but by then it was too late. Three years of military rhetoric and cold-war adventurism had created a consensus around a simple-minded anti-communism that could not be broken. Indeed, the Kennedy administration bears more responsibility for the persistence of cold war reflexes in the United States than any other. Ronald Reagan, whose record to this point is considerably less militaristic than Kennedy's, makes no effort to claim that he is anything but a small-town chauvinist. Kennedy made larger claims to internationalism, making his failure to dent America's instinctive parochialism a more serious

illusions

BOOKS

The aftermath of war

by Christopher Thorne

Ernest Bevin: Foreign Secretary 1945-1951

by Alan Bullock
William Heinemann, £30.00
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Christmas approaches. For loved ones who are professionally involved in foreign affairs, striving daily to ensure that Britain and the world stagger intact into the New Year; for friends who, from beyond the ranks of officialdom, contemplate with despair a succession of international crises and dangers, here is a tonic. Provide them — as all students of contemporary history and foreign policy should provide themselves — with this masterly survey by Alan Bullock. For in it they will encounter the full extent of the problems, perils and uncertainties that faced Ernest Bevin as Foreign Secretary from 1945 to 1951. And when comparisons have been made, they may well conclude that our present situation might have been worse.

For these were years of enormous change and confusion in international affairs. Since 1943, if not earlier, when the huge resources of the USA and the USSR had begun fully to tell in the wars against Germany and Japan, an essentially bipolar system had emerged, but its implications had yet to be completely absorbed or assimilated. The "German question" that had lain at the heart of European instability since 1871 was only in the process of being solved by the division of that country and the freezing of the continent within the framework of the Cold War. To the devastation and dislocation brought by war in Europe and the Far East was added the fear and the challenge engendered by a new weapon of terrible dimensions. The forces of Zionism and of Arab nationalism in the Middle East, as of nationalism in South East Asia, for example, were transforming the political realities of those regions. China, having long had to accept the role of one acted upon by others, was emerging as a defiantly independent — and Communist — power of potentially huge proportions. In Southern Asia, an era of western dominance was coming to an end, while in Western Europe loss of confidence mingled with the beginnings of a movement that was to provide the possibility of transcending — or at least drastically limiting — the inter-state rivalries of the past.

A revolution far more profound and lasting in its implications than the decisions for war in 1917 and 1941 was being enacted in the assumptions and attitudes governing American foreign relations. And again in the realm of ideas, men and women who after an earlier "world" war had learned to condemn animosity and alliances as conducive to robbery, conflict, and war, who between 1939 and 1945 had looked to the creation of a new international organization finally to banish such a prospect, now had to contemplate the revival of beliefs and practices that rested the safety of a state upon the power of deterrence and the pledges of its friends.

Not only was there bound up in these decisions more than Britain's fate in the war, yet what might be called, financially, still, "the world's" power, by virtue of its imperial possessions and Commonwealth ties, yet under increased pressure to surrender the former and without the resources to ensure the protection of Australia and New Zealand, for example. She had survived (it is absurd to suggest, as some now do, that she had "lost" the war). But so, too, had not only on the political right, had assumptions and expectations that belonged to an age now gone. Thus, Richard Crossland and Michael Foot were among those who argued in 1947 — perhaps the nadir of the country's fortunes — that a European socialist grouping, centred on Britain and France, could form the "Third Force" that would "hold the balance of world power", while Harold Wilson would be latching well into the 1960s that Britain was "a world power" and a world influence, and was "nothing". Even Clement Attlee, well known as Prime Minister of the

slenderness of the resources at his command, and at the end of 1946 inclined (to Bevin's horror) to pull out of the Middle East, looked for a time to a resurgence based on the Commonwealth and the strengthening of Britain's position in central Africa — "the line" — through Lagos and Kenya. It was Bevin, more than any other individual, who was called upon to steer Britain through the maelstrom, and it is upon Bevin that Bullock maintains his focus throughout. His book, in other words, does not remove the opportunity for more detailed studies of the formulation of foreign policy over specific issues and areas; but for an understanding of how the entire and infinitely complex network of pressures, considerations and desiderata was perceived and responded to, it will remain indispensable.

To a task that was arguably the most difficult ever to face a British Foreign Secretary, Bevin brought a number of valuable assets. He had the unwavering support of a Prime Minister who was content to leave the shaping and execution of foreign policy almost entirely in his hands. He had already won for himself an outstanding position within British politics and within Whitehall. He was closely in touch, it seemed, not merely with the trades union movement but with the feelings of the bulk of the British people, and he invested his office and policies with the strength of a massive personality. (In all these respects, of course, in contrast with the present scene could scarcely be greater.) His shrewdness, independence of mind and tenacity of purpose quickly won him the respect of his officials, while to a remarkable degree he came to possess their affection as well.

On the international plane, Bevin inherited the connections that had been built up during the unique war-time collaboration with the United States. Furthermore, during his tenure of office the British Government was to obtain from Washington a blessing that its predecessors, above all in the second half of the 1930s, had longed for in vain: a peace-time American guarantee of the country's security. The irony, of course, as Robert Farago has emphasized in his *Ambiguous Partnership*, was that this long-awaited commitment was accompanied by a marked diminution of Britain's ability to shape and execute its foreign policies according to its own preferences. (Even in 1944, the head of the Foreign Office's North American Department had foreseen the possibility that dependence on American financial assistance would become so great that "we may well find ourselves forced to follow the United States in a line of policy with which we do not fundamentally agree.") The transatlantic relationship was "special" in certain important respects, but even in 1939-41 it had been one of "competitive cooperation", as David Reynolds has put it in his admirable study, *The Creation of the Anglo-American Alliance* (a book which is not cited in the present study, which appears at times to underestimate the degree to which the competitive element had been present throughout the Second World War).

London was now expected to fall into line as an important but dependent ally. Nor was as demonstrated over the question of sharing atomic secrets. For example, was the parity of rivalry and distrust on the American side. Between 1945 and 1951 Britain was frequently the object of suspicion, of exasperation and indignation: over the socialism professed by its Government and its reluctance to embrace wholeheartedly the cause of multi-racialism in international commerce; over opposition to returning the German coal industry to private ownership as a whole from the disbanding of the industry; over its readiness to recognize the People's Republic of China, and its refusal to move towards the integration of Western Europe.

Yet at the same time Bevin's policies were subjected to strong criticism from the left. The Labour Party, which

tended to share an anti-Americanism with elements of the right in British politics. (This opposition from within the Labour ranks eased in 1948, but there were still 112 abstentions, mainly from that side of the House, when the Nato Pact was presented for approval in 1949.) Bevin was only able to contend with these and other, often conflicting, pressures because he had developed his own set of firm ideas about the position facing Britain, together with the principles and priorities that should guide her actions. At bottom, in Bullock's words, he regarded the country's difficulties "as temporary, rather than as part of a long-term pattern of declining power". As her resources — not least, coal production — recovered, so she would regain a substantial freedom of manoeuvre in foreign policy.

By the same token, he was ready to join Attlee and a small group of Ministers (the remainder of the Cabinet were left in ignorance) in deciding that Britain must manufacture her own atomic bomb. By the same token again, he did not hesitate to make plain to Washington views that did not coincide with its own. (Bevin's greatest contribution as Foreign Secretary, Attlee later told Bullock, was "standing up to the Americans.") Nor, despite American pressure, would British merge her fortunes and future with those of what he saw as an inherently volatile and fustianous Europe. Britain would provide the leadership of a European grouping, above all in bringing about an indispensable set of links with the United States; she would not, however, proceed along the path towards some kind of European federation, as Monnet and Schuman appeared to be proposing.

As Bevin saw it, then, Britain's future rested on a unique set of relations embracing Western Europe, the Commonwealth and the USA. It depended also on resisting, with these allies, the designs of the Soviet Union. In one of the many threads that he traces and weaves together with great skill, Bullock shows how Bevin's view of Soviet intentions developed, across the watershed of 1947-8, until he was convinced that Moscow was bent upon swallowing all of Europe if this could be achieved by any means short of war; that looking back as well as forward, "there never was a quarrel between Trotsky and Stalin over the thesis of revolution. The dispute took place over tactics". Faced with such a challenge, it became doubly essential, as Bevin and the Chiefs of Staff saw it, to maintain both stability and Britain's own military facilities in the Middle East, a region vital from the point of view of communications, oil supplies, and relations with the Muslim world; and for providing the RAF with bases from which it could strike back at the USSR should war come about.

Such a crude summary of Bevin's approaches to the major issues of the day might appear to confirm the charge brought against him by his left-wing critics: that he had adopted wholesale the underlying assumptions of traditional power politics, and had turned his back on socialist beliefs, which it came to foreign affairs. It is another of the merits of this book, however, that it dispels this simplistic notion. Bevin retained a nineteenth-century liberal's belief in "the sense and judgement of the common man of the world". In a passage that might have been taken from a League of Nations Union pamphlet, he declared of the "Commons": "There has never been a war yet which, if the facts had been put calmly before the ordinary folk, could not have been prevented." And he looked to the eventual establishment of a "great world-sovereignty" elected authority and the replacement of international law by "world law". In terms of more immediate possibilities, he placed much emphasis on the need to raise living standards in the less developed countries, and played a decisive part in the creation of the Colombo Plan, which aimed to achieve "the economic unity of Asia". For the most part, however, Bevin had neither the vision nor the resources



July 1945. Twenty-four hours after the formation of the Labour government. Attlee and Bevin set off to take the places of Churchill and Eden at Potsdam.

for such projects. His hopes for a "partnership" between Britain and Middle Eastern states, for example, that could benefit "the ordinary people" were overshadowed by the conflicts surrounding an Arab nationalism that he underestimated and a Zionism that led many Jews to portray him as another Hitler, bent on persecuting their people. On this last, highly sensitive issue, it is likely that some opinions will be beyond shifting. But there will be many who will be persuaded by Bullock's careful examination of the evidence and his conclusion that Bevin, for all his outbursts of heavy-handedness and belligerence, was not fundamentally anti-Jewish.

He believed it was essential that the Arabs should not be alienated from the West, and that Zionist pressures — not least, through an American President too readily swayed by domestic political considerations — were bringing about a situation that was unfair to the Palestinian Arabs and would be a source of lasting resentment and strife. Having had to join his Cabinet colleagues in passing to the UN a burden that had become intolerable, and having failed to prevent partition, he allowed his anxieties, in Bullock's words, "to crowd out recognition of the Jewish epic achievement in turning the disaster of the extermination camps into the triumph of Zionism". The antipathy of the Israelis, on their left-wing critics, that he had adopted the recovery of Europe, or his warnings to the Arabs and his efforts to damp down hostilities in the Middle East... or his desire to get a settlement in Palestine that would not leave the Arabs committed to its overthrow.

Bevin failed over Palestine; but in retrospect one may conclude that the problem was beyond even the compass of the intervention of a common man of the world. He may be said to have failed, but he may also be said to have succeeded, in that he has been deeply implicated in, and has profited by, the barbarities of the Third Reich, were appropriately treated — a topic on which this book is surprisingly silent. (There is no reference to Tom Bower's formidable indictment, *Blind Eye to Murder*.) Bevin clearly retained a deep distrust of the Germans in general, "did not change the German character very much," he observed; "At the same time, however, he did as much as anyone to create the conditions in which a Federal Republic could be brought into the ranks of the major Western powers. There is not a

space here to rehearse what Bullock demonstrates in detail: that is, the crucial part played by Bevin in the realization of the Marshall Aid scheme through the Organization for European Economic Cooperation; in the creation of the West European Union; above all (with the help of his close relationship with Dean Acheson), the formation of Nato as an essential means of both checking the Soviet Union's insidious pressures and giving Western Europe the confidence to build anew. The West's resolve to stand firm, though without courting a confrontation, over the Soviet blockade of Berlin also owed much to Bevin's own resolute yet careful reactions; conversely, the decline of his strong grip on British policy became apparent over the Korean war as his health rapidly deteriorated in 1950-51.

Did Bevin, for all his achievements, commit Britain to that vain attempt to sustain the role of a leading world power that was to mark her foreign policy for the remainder of the 1970s? While not disregarding the misperceptions that the Foreign Secretary shared with most of his contemporaries, Bullock argues forcefully that in these years immediately following the Second World War it would have been disastrous had Britain not played a major part in the re-shaping of European, transatlantic and Middle Eastern affairs above all. Rather than "saddling Britain with a role she could not sustain", he suggests, Bevin "provided his successors with the indispensable basis of security in the Western Alliance on which they could then proceed to make whatever adjustments were necessary and to develop such options as entry into Europe and withdrawal from the Middle East and east of Suez".

It is a conclusion that may not allow sufficiently for the degree to which assumptions and attitudes, and not simply specific choices of policy, tend to be carried forward by Bevin, was perhaps somewhat over the top. But if the legacy left by Bevin was that of the French Revolution on Ireland, Bullock's summary would suggest, the argument that we must distinguish between the immediate post-war years and the period that followed is entirely persuasive. It is a further demonstration of how, from its first, complexity is matched by clarity in this fine study of a very great man.

Christopher Thorne is professor of international relations at the University of Sussex.

BOOKS

Legacies of 1848

The Republican Experiment, 1848-1852

by Maurice Agulhon
Cambridge University Press, £20.00 and £5.95
ISBN 0 521 24829 9 and 28988 2

France's republican experiment in 1848 seemed in the short run no more successful than the other revolutions of that year. Its radical phase was over and before the disillusioned workers of Paris rose in revolt in June, and the election of Louis-Napoleon as President in December 1848 was the first step on the road to the authoritarian Second Empire.

Yet one great innovation of 1848 survived: universal male suffrage. Replacing a monarchy in which voting had been based on a narrow property franchise, the Second Republic introduced France overnight to modern democratic politics, and part of its fascination for historians lies in the tension between political modernity and social archaism. In Paris and other large cities, there was an explosion of socialist theorizing and expectation, fuelled by innumerable working-class clubs and newspapers; but the mass of the new electors lived in the countryside, isolated by poor communications and widespread illiteracy. For permanent success, republican ideas would have to penetrate rural France.

The social conflicts of the year 1848 and the presidential election suggested that their time had not yet come, but one of Maurice Agulhon's arguments in *The Republican Experiment* is that the years 1849-52 saw a rapid growth of political consciousness, at least in certain regions. The growth of the "democratic socialist" opposition and the violent resistance in the south to Louis-Napoleon's *coup d'état* in 1851 showed that solid foundations for democracy were already being laid. Thus the Second Republic pointed forward to the Third.

Agulhon's book is full of stimulating analyses and interpretations, though it is designed primarily as a university-level textbook, and traces with admirable clarity (and with the help of a useful chronological table and bibliography) the succeeding phases of these complex years. No one is better equipped to write such a book than Agulhon, whose works on the Var department were pioneering studies of the spread of democratic ideas among peasants and rural artisans, and who is a specialist on the kind of political symbolism and iconography to which the men of 1848 were so attracted — trees of liberty, flags, monuments, historic dates, even beads, which first acquired their radical connotations at



A monument to the French Revolution at Méry, twenty-five kilometres south-east of Paris. This is one of many illustrations in General Sir John Hackett's *The Profession of Arms* (Sidgwick & Jackson, £12.95).

this time. He is particularly good at bringing out the assumptions which lie behind formal political positions, and has some brilliant pages on the "collective mentality" of the rural forces in 1849-50, the "party of order" and the left-wing "Mountain".

One of the book's merits is that it gives full weight to the later years, including the year between the *coup d'état* and the proclamation of the Empire in 1852. Although the hopes of 'socialism' died in the first months of 1848, Agulhon emphasizes that a sincerely democratic liberal republicanism survived a good deal longer, and he is notably fair to often maligned figures like Lamartine and Cavaignac. His real sympathies, however, lie with the *démocrates* of 1849 and after, and he sees in their confrontation with the conservative "party of order" the origins of the twentieth-century left and right. While Bonaparte plotted the seizure of personal power, the Mountain clung to constitutionalism and reverence for the law; they were "the forerunners of Jaurès" rather than the heirs of Robespierre.

Agulhon's treatment of economic matters is rather perfunctory. There is little about the economic crisis which ushered the revolution in, or about the specific grievances (taxes, wine prices, forest rights, and so on) which kept certain rural areas in a state of simmering discontent. For Agulhon, who is above all a historian of politics and political culture, such discontents perhaps seem secondary to the liberation of political energies which was provoked by universal suffrage itself.

This book first appeared in 1973 as part of an outstanding series of textbooks on French history since the Revolution. Now several of them are being translated as the "Cambridge History of Modern France". Janet Lloyd's translation reads very smoothly, and altogether this is an auspicious beginning to a most welcome enterprise.

Robert Anderson

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Whose revolt?

Partners in Revolution: the United Irishmen and France
by Marianne Elliott
Yale University Press, £15.00
ISBN 0 300 02770 2

Dr Elliott's book is the first major study of the 1790s in Ireland to appear for several decades, and draws exhaustively on the archival sources of three countries. On its main theme — the relations between the middle-class United Irishmen, Ireland, Britain and France — it is an accomplished work; it also illuminates other themes of the decade, and should serve to open up again a general debate on the impact of the French Revolution on Ireland.

In particular, the book brings out more fully than any other account the dimensions of the debate between those who wished to proceed with rebellion without delay, and those who wanted to link it to a French invasion. This debate is seen even as central to the evolution of the weak preceding the outbreak of rebellion of May 23, 1798.

The emphasis Dr Elliott puts on this debate is also one of the reasons why she emphasizes an "apolitical

popular momentum in the countryside which almost independently reached a head in 1798. But the precise nature of lower-class rural unrest and the relevance to it of the ideas of the middle-class United Irishmen are so complex that Dr Elliott's comments are by no means the last word on the subject. Indeed, they tend themselves to be confused, as they do an ultimately unreal distinction between two distinct layers of rural unrest labelled as "Whiteboy" and "Defender". Dr Elliott relies rather heavily on the vague and imprecise idea of a millennial urge among the lower classes to undo the seventeenth-century settlement which had transferred ownership of the soil into the hands of the Anglo-Irish.

The distinction between the United Irishmen and lower-class malcontents also substantially influences her interpretation of the character of the '98 rebellion. Her book is surprisingly favourable to the United Irishmen, as much rescuing them from criticism as from neglect. If the rebellion was marred by excesses, it was in her view not because the United Irishmen had been reckless, but because the fears, aspirations and tensions of the rural classes took over. By 1798 the hold of the United Irishmen Society outside the boundaries of the United Kingdom is said to have been weakening, and the number of sworn rebels is said not to have been great. Dr Elliott believes that it is unlikely that there would have been a rebellion in 1798 if the leaders had been at liberty.

While the vanity and lack of realism of the United leaders are adverted to briefly, they are never considered at length. In Dr Elliott's view, Ireland in the mid-1790s possessed the means of liberating itself, even without French aid. The complexities and divisions in Irish life are greatly underestimated in this account, and the momentum that the United Irishmen gave to events beyond their control even in the early stages understated. Dr Elliott elevates the United Irish leaders to a stature that they have not enjoyed in most modern historiography. Arthur O'Connor is, for instance, described as a "talented statesman". Lady's coming landing in Dublin in September 1798 is described as a dignified character; a geographical is said to be necessary of Russell and of Robert Emmet, a "calm, calculating" leader.

Dr Elliott's book is significant in two ways: as an unravelling of the diplomatic negotiations of the United Irishmen, and as a study of debate and divisions within the United Irishmen on diplomatic and political issues. However, in emphasizing the millennial character of popular discontent in the countryside and accounting for the division between United Irishmen and the lower classes, it is also unfavourably apologetic in its focus.

L. M. Cullen

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Gurus and garlic

Beyond the Terror: essays in French regional and social history 1794-1815

edited by Gwynne Lewis and Colin Lucas
Cambridge University Press, £22.50
ISBN 0 521 25114 1

Eight of Richard Cobb's friends and pupils have joined together to produce these essays in his honour as he approaches retirement. Anarchy, to which the dedicatee has devoted his writing life, often characterizes celebratory collections of this sort. Alfred Cobban, that other guru around whom British students of French history gathered in the 1960s, disapproved of them for this reason. But the editors have spent too much time studying anarchy under Cobb's inspiration to want to practise it themselves, and the collection they have assembled is tightly controlled.

All except one of the essays, an introductory one by Martyn Lyons on Cobb and the historians, is about France between the fall of Robespierre and the fall of Bonaparte. Some of them are outstanding. Colin Lucas's exploration of Cobb's and social violence after 9 Thermidor, in particular, is a brilliant, up-to-date discussion of an important issue. It is a fine example of how to write jargon-free social history while absorbing all the thought of the jargon-mongers, and it needs several readings to digest and ponder all its lively ideas and insights.

It is complemented by his co-editor's survey of political brigandage and popular disaffection in the south east, although this is territory that the author has ranged over before. Colin Jones's analysis of the politics and personnel of social welfare and Alan Forrest's contribution on conscription and crime also have distinct echoes of recent books. They are leftovers from greater works.

Peter Jones's material so far, however, has appeared only in article form, and what he writes here on common rights and agrarian individualism in the southern Massif Central adds a further piece to the impressive jigsaw of his findings on this area. Written in a straightforward style, it is a subtle appreciation of the complex problems surrounding the question of common rights, and the difficulties of reaching clear general conclusions about them. Olwen Hufton, the only historian to straddle both the Cobb and Cobb camps, announces a new range of interests when she looks at the

painful process of reconstructing the church before the concordat. Stripped of its anachronistic feminist rhetoric, this is a good contribution to the religious history of the Directory as well as a useful coda to her earlier work on women in the revolution.

The problem with Cobb's history is that it is meant to be wallowed in. The reader is bombarded with picturesque examples of popular behaviour punctuated by much quoting of French terms and phrases until he swoons as if overcome by garlic. Even the master himself sometimes gets carried away, and increasing numbers of revolutionary historians are wondering whether this approach is not now yielding diminishing returns. Students certainly do not find it easy to make sense of, or distil meaningful conclusions from, and in the hands of imitators it can become monotonous. This collection does not entirely escape that pitfall. Just occasionally big issues like the revolutionary bourgeoisie, capitalism, or agrarian individualism peer through the curtains, like great performers waiting to come on after the warm-up men have finished; clearly several of the contributors do have strong views on what the revolution was all about, but will not risk Cobb's scorn by making parade of them here.

It is therefore refreshing at the end to find one essay with no visible trace of its influence at all. In "Rhine and Loire: Napoleonic elites and social order", Geoffrey Ellis soberly analyses who emerged on top of the pile, when all the brigands, deserters, *émigrés*, *insoumis*, *égarés* and *femmes capotées* had passed by. At once an account of a historiographical debate, an assessment of its meaning, and an original contribution to the question, Ellis's essay is a godsend to all teachers whose students find the whole concept of the *notables* baffling but cannot, or will not, pursue the matter in French. Like its subject, it may well endure longer than some of the racier elements it exists alongside.

William Doyle

William Doyle is professor of modern history at the University of Nottingham.

Britain and Revolutionary France: conflict, subversion and propaganda is a collection of essays edited by Colin Jones and published by the University of Exeter at £1.75, as number five in the series "Exeter Studies in History". It includes Michael Duffy on British policy in the war against revolutionary France, Marianne Elliott on French subversion in Britain, and Robert Hole on British anti-revolutionary propaganda.

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BOOKS

Rhetoric of evasion

The Philosophy of Popper by T. E. Burke
Manchester University Press, £16.00 and £6.50
ISBN 0 7190 0904 9 and 0911 1
Popper and After: four modern irrationalists by David Stove
Pergamon, £8.95 and £4.95
ISBN 0 08 026792 0 and 026791 2

It has been one of the great virtues of Sir Karl Popper's philosophy of science that it extruded dogmatism from science and opened up an exciting arena of competitive theorizing. His rejection of induction as the basis of science echoed Hume, but was elaborated in such a way as to constitute a revolution. But as with most revolutions, consolidation of the new order has proved more difficult than the initial coup. The problem was how to prevent a helpless slide into scepticism, indeed virtually nihilism. In particular, the strong suggestion in some of Popper's remarks that scientific truths do not accumulate has often been taken up by such followers as Lakatos and Feyerabend in a spirit of *epistemic anarchy*.

T. E. Burke discusses many of these issues in his pleasantly written and useful act of pedagogic homage to Popper. He explicitly works within the Popperian paradigm of philosophy, but at times calls up Wittgenstein and Austin to cloth with some subtlety of meaning the often skeletal logical simplicities of Popper. Whether a shotgun marriage of Popper and Wittgenstein can provide a coherent position or not, it certainly serves to mitigate somewhat the more irritating consequences of Popper's cult of originality and the vanity detectable in his claims to have solved perennial philosophical problems. Burke explicates Popper's view of science in terms of the criterion we have for saying anything, and the commitment we undertake in saying it, and by resisting attempts to widen the gap between the two seeks to block the slide from fallibilism into scepticism: "the criteria determine the commitment and with it the appropriate method of assessment."

There is a good discussion of historicism; but his treatment of Popper's work on history, politics and society seems to me to show that, apart from some justly famous arguments, much of it is thin and underdeveloped. Popper's heart, if not his political passion, lies elsewhere.

David Stove's treatment of what he takes to be Popper's irrationalism might well be introduced by saying that for every grand claim of philosophy cutting a swathe in the metropolis, there is a dogged provincial critic who has an unforgiving eye for the slipshod reasoning, concealed debts and (above all here) equivocations. Stove is precisely this kind of nemesis, except that such a characterization might suggest a humourous solemnity. On the contrary, some of Stove's critical passages - such as a good discussion of Popper on the fallibility of probability statements - are hilarious.

Stove's accusation of irrationalism is made not only against Popper, but also against Lakatos, Kuhn and Feyerabend, and it rests upon the fundamental assumption that in the last four centuries, science has accumulated a vast amount of knowledge about the workings of nature. It is the denial of this proposition which he takes to be irrational, and argues that just such a denial is to be found, albeit implicitly and ambiguously, in the work of these four authors. He has an acute eye for rhetoric, and a particular concern for equivocation. Two evasive techniques are identified. The first is "neutralizing" success words, a technique most expeditiously achieved by putting terms like "prove" "refute" "show" in quotes, or in inverted commas which may (or may not) indicate to the reader that these words do not carry their full sense.

The second technique he calls "suborning logical expressions" and consists in enclosing logical expressions (such as "if" "then") in inverted commas, so that they are incapable of being

used within historical or sociological remarks about classes of people (such as scientists) who do or do not accept the logical proposition in question. The issue raised by the sentence thus bifurcates, making criticism difficult. He criticizes Lakatos as being particularly adept of the former technique, tussling "so-called" into his writing and using quotation marks almost as a verbal tic. Throughout all this, there shines the rage, typical of a Sydney philosopher, at any wilful attempt to obscure what the issue is. Stove is also acutely aware of the element of intimidatory pedantry (*ad terrorem*, as he puts it) and the *enfant terrible* with which Lakatos and Feyerabend tease their readers. It is above all objected that they say things that they

can't and don't believe. Stove suspects that Kuhn differs from the rest in actually believing the full irrationalist case, and it is of course Kuhn who has most unequivocally advanced the doctrine that there can be no accumulation of scientific knowledge. The hard centre of the book consists in tracing the historical source of the irrationalist argument to a misuse of Hume. Hume's own argument is then analysed in detail to isolate its relevant fundamental premise: deductivism, or the view that the only good reasons are deductively based. Without this assumption, "the argument would have no sceptical or irrationalist consequences." It is because this premise must be propped up that Stove's "irrationalists" have recourse to the

various kinds of equivocations criticized. To the more general question of how Popper could have taken seriously such absurd expressions as "irrefutability is not a virtue of a theory, but a vice", Stove conjectures (more particularly in a recent essay in *Philosophy*) that it was in response to the shock, intense in the intellectual community in Popper's youth, caused by the discovery that Newtonianism was not the cast-iron certainty it had seemed to both philosophers and natural scientists in the previous two centuries. To identify in Popper a central vice called "irrationalism" is certainly going to confuse a lot of people who have taken on board Popper's own hatred of what he thought was "irrationalism" in Plato, Hegel, and other

enemies of the Open Society. And after a generation's assault upon some thing called "inductivism", Stove's book opens up the prospect of an *avant-garde* inductive probabilism. But such is the militaristic cast of thought which seems to dominate much of the philosophy of science, and deserves the place it will have in setting the terms of arguments to come.

Kenneth Minogue

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Politics of freedom

Kant's Political Philosophy by Howard Williams
Blackwell, £20.00
ISBN 0 631 13123 X

Kant's strategy when analysing the work of other philosophers was formidable and his skill consummate. Always incisive and penetrating, he also used the occasion to promote his own philosophy. To expect Howard L. Williams to write as powerfully as Kant would be asking far too much, but unfortunately he spoils his good case for Kant's prominence as a political thinker by repetitiveness, excessive fondness of detail and occasional bouts of Hegelianism. In one respect, however, he follows Kant's example. He uses his monograph to propagate his own political views which are sympathetic to, though not uncritical of, unorthodox Marxism as exemplified by two writers, Lucien Goldmann and Herbert Marcuse, with whose interpretation of Kant he needlessly burdens his otherwise useful study.

Kant's political thought has, as Williams rightly observes, been undervalued, particularly in the English-speaking world, though the tide may well be turning - a work of the stature of John Rawls's *A Theory of Justice*, for instance, has a distinct Kantian ring. The reasons for this neglect are patent. Most of Kant's political writings are occasional pieces which are understandably overshadowed by the great edifices of his critiques. Thus, the legend arose that Kant's interest in political thought was peripheral and he was only a minor political thinker. Williams rightly combats this myth. But the claim to be the first to have convincingly shown that Kant's political theory is at one with his critical philosophy is, like many claims of intellectual priority, highly questionable.

Williams's account of Goldmann (who was an entertaining man, though rather heavy-handed writer) focuses attention on a basic problem of Kantian ethics and politics, viz. the difficulty of applying his principles to practice. In Kant's view, by relying on experience alone it is neither possible to vindicate science philosophically nor to discover the basic principles of morality and politics; experience is contradictory and contingent. In order to impose order upon the incoherence of practical life we have to look for principles of reason which are logically prior to experience. These principles, though universally valid, are merely formal. But precisely because they are formal, they are also empty. For example, Williams, in the wake of Goldmann, believes that the second formulation of the categorical imperative, which enjoins 'us' to treat ourselves and others as ends and not as means, entails condemning the capitalist market economy in which wage-slaves are allegedly treated as means. But we cannot appeal to the categorical imperative to reject the planned economy preferred by Williams since it denies freedom of choice to individuals for the sake of the supposed greater good of society. In fact, this liberal interpretation of Kantian politics is far more common.

Williams is however right in emphasizing that in both ethics and politics Kant is the philosopher of freedom. Kant for him is logically prior to all other inalienable rights, since, how ever, man is a rational being, he has freedom of one kind or another, and that can be achieved only within a political



This drawing of an Oriental soldier is by Antoine-François Callet (1741-1825) and is part of the exhibition "The Draughtsman's Art", currently showing at the University of Manchester's Whitworth Gallery.

whose constitution permits all citizens a share in government. That is the core of Kant's political thought. In Kant's scheme of politics law, as Williams sees correctly, plays a central part; it is for him the outer shell of the moral realm. Respect for law makes Kant prefer reform to revolution, which he rejects in principle. But he admired the spirit which inspired the French revolution, though not the terror. Indeed, for his age he was a radical, since he demanded that all hereditary privileges be abolished and that all citizens be given an opportunity to participate in government through electing a representative legislature. That is why Heine and Marx thought of him as the German philosopher of the French revolution.

On most major issues of Kant's thought - on the emergence of his politics from his epistemology and his ethics, on his attitude to property, on his optimistic view of history, on his plan for perpetual peace to be achieved through a federation of parliamentary democracies, Williams is a very sound indeed. Admittedly, there are minor errors, one arising from a misleading translation of a passage in *The Metaphysics of Morals* concerning the origin of the state. They make Kant appear liberal, which he rarely was.

But, in the main, Williams's approach to Kant is sympathetic. He even goes to some length to point out that when this philosophical arch-bachelor wrote about the social role of women to whom he denied all political rights he is more enlightened than is suggested by his depressing, unromantic definition of marriage which, for him, was a union between two persons of different sex concluded for the purpose of each other's sexual organs.

Williams rightly concludes that Kant's approach to politics is by no means naïvely dogmatic. He did not place his hopes merely on the moral improvement of mankind, but rather in the fact that, on man's natural ability to learn from past conflicts, he

need to accommodate himself to others for the sake of survival. Indeed, Kant, although he lived far from the scene of political action, was an extremely shrewd judge of contemporary politics. His friends who listened to his surprisingly witty and urbane dinner-table talk were struck by his political insight: he talked as if he was privy to all the cabinet secrets of Europe. But Kant banished such ephemeral questions from his political philosophy and concentrated on the universal valid principles of reason to which we can and should appeal if confronted by conflict of interest. Williams's study then alerts us to these fundamental issues and thus enables us to grasp why Kant belongs to the front rank of political thinkers.

Hans Reiss

Hans Reiss is professor of German at the University of Bristol.

Literary issues

Philosophy and Fiction: essays in literary aesthetics edited by Peter Lamarque
Aberdeen University Press, £11.95
ISBN 0 08 030353 6

The aesthetics of literature is a wide field that includes problems of many different kinds. Some of these are familiar to, and a matter of concern for, non-specialists; others occupy the attention only of aestheticians and literary theorists.

Into the first class of problems falls the issue of the censorship of works of art. If a literary work is presented as morally evil, outlook on life (or takes an extreme case), and it is liable to have undesirable effects on some people, is it ever justified for

someone to forbid or suppress its publication or to limit its distribution in order to prevent moral harm to other members of the community? Another familiar issue is one of the tangle of threads that is referred to as "the problem of tragedy". The experience of a tragedy involves distressing emotions to which a spectator willingly submits himself, even when the conclusion of the work is in no way consolatory. Moreover, the spectator willingly submits himself to the experience of the tragedy for the sake of having the experience of the work itself, not for some further end which might be realized by his having this painful experience and which might provide him with ample recompense for his suffering. Why should anyone find it rewarding to do this? What kind of intrinsic value can the experience of tragedy have?

The class of problems of more specialized interest includes the following three problems. First, there is a problem about the status of fictional characters. What, exactly, is a fictional character? For a fictional character is not a real person and so, it seems, does not really exist. How, then, can we be interested in the thoughts, feelings, situation and fate of a fictional character? How can we be moved by the fate of Anna Karenina, when we know perfectly well that no such woman ever existed? How, indeed, can we even acquire true or false beliefs about her, or think about her or refer to her, if she never existed?

Secondly, there is a problem, or a set of problems, about the relation of literary work and features of its author. It seems that in principle we can distinguish the personal qualities of the author from the properties of his creation. His work may or may not reflect his own beliefs, attitudes, feelings or qualities of character. The question is this: From the point of view of the understanding and evaluation of literature, does it matter what the author's real beliefs, attitudes, feelings and character are? If an author is insincere in what he writes, is this perhaps a moral defect in the author but considered as literature? Can we should we, separate our opinion of the author from our opinion of his work?

Thirdly, there is a problem of a rather abstract sort about the nature of literary appreciation. What kind of appreciation is literary appreciation? How is it related to other kinds of appreciation - to the appreciation of scenery and wine, for instance? And why is it important to achieve a better appreciation of a work of literature?

The five problems I have outlined are the foci of the five essays collected in *Philosophy and Fiction*. The essays, originating from a conference of the Scots Philosophical Club, are written by Colin Lyas, Stein Haugom Olsen, Flint Scholer, R. W. Beardsmore and Peter Lamarque, the editor, who also provides an introduction. The authors are members of any school of philosophy and their approaches to their topics are individual. What the essays share is a non-technical clarity of presentation, a concern to solve the problems they deal with and a high standard of argument.

Anyone seriously interested in the aesthetics of literature will find much of interest in the essays; the collection also forms an excellent introduction to the subject.

Malcolm Budd

Malcolm Budd is lecturer in philosophy at University College London.

BOOKS

Motile cells

Mechanisms of Cell Motility: molecular aspects of contractility by Peter Sheterline
Academic Press, £13.40
ISBN 0 12 639980 8

About a decade ago, it was found that the contractile proteins actin and myosin occur not only in muscle, but in almost all eukaryotic cells (the cells of structure in all organisms except bacteria and blue-green algae). The implication was clear: muscle provides a special case of a very general mechanism for cell motility, namely the production of force by the cyclic interaction of oriented myosin molecules with polar arrays of actin filaments. Subsequent research has produced a wealth of information on the location of these two proteins within cells, and an ever-increasing catalogue of ancillary proteins which can (or may) organize and regulate the interactions of actin and myosin.

One fascinating outcome of this research is that it is clear that contractile proteins are sometimes found in specialized motile or cytoskeletal assemblies which are radically different from muscle; actin is particularly versatile and can perform structural or even motile functions in the absence of myosin, while many of the novel ancillary proteins have no muscle counterparts. Although this diversity has made the field an exciting one in recent years, the rapid accumulation of data can prove confusing. There is, therefore, a clear need for a text which would guide the non-specialist through the mass of information now available and, by relating recent findings to basic principles or well-established models such as muscle, confer some sense of unity on the whole. This is the goal which Dr Sheterline has set himself.

His book is designed to serve as a reference text for cell biologists and to provide an integrated discussion on molecular mechanisms of cell motility suitable for senior undergraduates and postgraduates. Unfortunately, these aims come into conflict, as a great deal of factual material is presented in a terse, undiscursive style; and the information is not used critically enough to establish and clarify basic principles, thus greatly detracting from the book's value as an introduction for undergraduates and non-specialists. On the other hand, as a work of reference the book is less comprehensive than a selection of good, recent literature reviews.

The book's first five very compressed chapters describe in considerable detail the biochemistry and molecular properties of the important contractile proteins: myosin, actin, tropomyosin, calcium-dependent regulatory proteins (for example, troponin and calmodulin) and contractile network regulatory proteins (for example, proteins which regulate actin filament assembly and stability). Though useful, these chapters make for rather heavy reading. Referencing is in general adequate, though not comprehensive, as there are a few serious omissions. For example, a controversial mechanism for actin assembly is presented with neither evidence nor references.

A curious feature, however, is the lack of an introduction, which could have provided a biological context for the early chapters on biochemical and physical properties of proteins. The interested newcomer, seeking to discover why actin and myosin are important and interesting, needs a new cell, must first read chapter six on the organization of contractile networks in relation to function. This, and the following chapter on the cellular environment for contractile networks are the most stimulating in the book. The author here wisely chooses to give the subject equal weight with non-muscle systems; to that it is apparent as an example of, rather than a prototype for, an actin-myosin contractile system.

Chapter seven discusses very briefly the relationships between contractile systems containing actin and myosin and other cytoplasmic filament systems: microtubules, intermediate filaments and connectin filaments. There are also sections on interactions of



Rattlesnake striking, its specially-hinged jaws opening almost to 180 degrees. Taken from *Split Second: the world of high-speed photography* by Stephen Dalton, published by Dent at £10.95.

contractile networks with membranes and the cell surface, and on internal chemical regulation in the cell. A final chapter discusses the action of drugs on contractile systems.

A major weakness of the book is that the material is restricted to data on vertebrate cells. Much important and innovative work on molecular mechanisms of cell motility has been carried out with invertebrate eukaryotes, and this needs to be included in any general textbook on cell motility. Although some specialized functions of contractile proteins found in invertebrates have no known parallels in higher organisms, actins and myosins are so highly conserved throughout eukaryotes that invertebrate models may yield valuable clues about contractility in vertebrates.

Although cell motility is a stimulating and exciting field, the author misses the opportunity to say so. His emphasis on factual information, rather than principles and ideas, is likely to mean that his book dates rather rapidly.

Harriet Harris

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Molecular tools

Techniques in Molecular Biology edited by John M. Walker and Wim Ganstra
Croom Helm, £19.95 and £9.95
ISBN 0 7099 2747 9 and 2755 X

The now familiarly spectacular advances in molecular biology very much depend on the availability of new, or refined, analytical techniques. For this reason it is extremely important that students and practitioners alike have a clear idea of both the theoretical and practical basis of these new techniques. For instance, before commencing any experiments they should be particularly aware of the strengths and weaknesses of a particular technique. Only then is the proper evaluation of the resulting data possible.

Unfortunately, through ignorance, some techniques are often used improperly or under conditions which are suboptimal. This can lead to the generation of misleading or artefactual results. Awareness of a technique and its possible pitfalls is equivalent to the knowledge of the "tools of the trade".

Techniques in Molecular Biology is a short multi-authored compendium which introduces students and researchers to some of these basic "tools" in the molecular biological area. These

include high-pressure liquid chromatography (HPLC) of proteins and nucleic acids, analytical electrophoresis of proteins and nucleic acids, protein and deoxyribonucleic acid (DNA) blotting methods, protein and peptide sequence determination, ribonucleic acid (RNA) isolation and fractionation, *in vitro* messenger RNA translation, cloning of complementary DNA sequences, plasmid isolation, nick-translation, use of restriction enzymes and ligases, mini-clones and maxi-clones for the detection of cloned genes, "cosmids" as cloning vehicles, and DNA sequence determination.

Although the contributions are the components of a "workshop" courses run at the Harfield Polytechnic in recent years, the book is not a practical manual. On the other hand, a sizable list of pertinent and recent references is thoughtfully provided at the end of each chapter which should allow the necessary access to precise practical details where required.

Although there is a little overlap between the individual chapters, such as when a particular author must refer to such basics as HPLC or polyacrylamide gel electrophoresis, the result is not too disturbing. The multiauthored reference system used at the end of each chapter is, however, a little puzzling but this is not a serious impediment. A little surprising is the omission of a chapter on general protein isolation and purification (proteins are still not available commercially in purified form) as well as the use of antibodies.

This book will be a very useful addition to departmental libraries, but it should also be of interest to undergraduates and researchers entering molecular biology. In terms of practical detail, however, it cannot compete with such other recent titles as *Cold Spring Harbor Molecular Cloning Manual* (edited by Maniatis, Fritsch and Sambrook) or the relevant volumes of *Methods in Enzymology* (Academic Press). Nevertheless, it should serve as a useful introduction to the practicalities of the newer techniques, and serve to stimulate a proper practical approach to the subject at undergraduate level. It must be conceded, however, that techniques in this area are in a state of continual flux and the book, if it is to survive, will need regular updating.

R. H. Burdon

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ERRATUM

In the issue of 4th November, the review of Sheldon Rose's *Introduction to Stochastic Dynamic Programming* was written by D. J. White, who is professor of decision theory at the University of Manchester.

Structural frames

Linear Analysis of Frameworks by T. R. Graves Smith
Ellis Horwood, Wiley, £25.00 and £9.95
ISBN 0 85312 613 5 and 614 3

An understanding of the methods of solution of structural frames is a fundamental requirement of civil and structural engineers. A knowledge of the linear behaviour of such forms is therefore a prerequisite to the appreciation of the more advanced non-linear topics such as stability or plastic behaviour.

Although linear analysis of framed structures has been extensively covered by a number of authors, the subject is continually developing both in content and approach. A new work on the topic can therefore only be justified if it contains either new technical developments or emphasizes techniques currently in favour. It is this latter approach that Dr Graves Smith has adopted, developing the subject around the computer-based methods of flexibility and stiffness.

His book has been thoughtfully developed into three sections treating fundamental concepts, determinate frameworks, and finally the matrix methods of flexibility and stiffness. An opening chapter, introducing the basic concepts of external and internal forces and of stress resultants, is followed by a discussion of deflections of the concept of work. As some knowledge of elementary strength of materials has been assumed, the author has only stated the stress-strain equations and the results of the engineering theory of bending.

The solution of statically determinate frames is then treated in two chapters, the first dealing with the calculation of forces and the second with the determination of displacements. In the description of forces, the author develops the ideas of static equilibrium extensively before intro-

ducing the determination of reactions and the calculation and plotting of stress resultants for beams and frames. Pin-jointed structures are then considered. The methods of joints, sections and tension coefficients being clearly and carefully explained. The calculation of displacements is very neatly described using the equation of virtual work and the application of the unit force method. Both pin-jointed and rigid-jointed frames are treated and finally the analysis is applied to the calculation of support settlement.

The first of the final three chapters is devoted to the flexibility method, beginning with a simple, clearly described example of the method applied to a pin-jointed structure with one redundancy. The matrix formulation is then developed - first illustrated with an example of a doubly redundant pin-jointed frame and then applied to the solution of structures involving flexure.

The stiffness method of analysis is given a rather lengthy treatment in the concluding two chapters. The first develops the method of analysis from a physical aspect, describing the formation of the global stiffness matrix and the member stiffness and transformation matrices, and applying the procedures to the solution of structures ranging from pin-jointed frame members to rigid-jointed space structures; and the second is devoted to the systematic procedures by which it may be formulated for use in a general computer program.

Dr Graves Smith has prepared his material with much care and thought, and has produced a concise description of modern analytical techniques, a deeper appreciation of which may be obtained through the comprehensive set of problems given at the end of each chapter. As he states in his preface, his intention was to present the subject of linear framework analysis in an easily assimilable manner: in this aim he has been most successful.

D. J. Just

D. J. Just is lecturer in civil engineering at the University of Aston.

Heat and rust

Introduction to High Temperature Oxidation of Metals by N. Birks and G. H. Meier
Edward Arnold, £13.50
ISBN 0 7131 3464 X

The high temperature oxidation of metals and more particularly alloys, is an industrially important subject because all metallic materials at some stage in their manufacture are subject to exposure to an oxidizing environment. Many alloys are also used in circumstances where oxidation is inevitable - for example, the heating element of a domestic electric fire and the hot plate and heating surfaces of cookers. More exotic examples occur in aircraft engines and in power-generating plants. Many such alloys need to be resistant to oxidation.

The subject also excites intense scientific interest as the study of oxidation involves thermodynamics, the kinetics of chemical reactions, phase transformations, and the whole spectrum of heat and mass transfer phenomena. It is not surprising therefore, that it has spawned an enormous volume of often-detailed literature.

This book aims to provide an introduction to the fundamentals of oxidation, but in places progresses well beyond what some might regard as a basic exposition. Although it makes an attempt to serve as an exhaustive review of the literature and only gives selected references, it should provide a sound scientific appraisal for both undergraduates and professional materials scientists before they immerse themselves in a more detailed study.

The book adequately covers fundamental thermodynamics, phase stability, and equilibrium diagrams, together with the mechanisms of oxidation processes and the diffusion effects by which oxidation occurs. The kinetics of oxidation processes are dealt with in terms of classical theories for single-phase and multiple-phase oxide layers.

More detailed coverage is given to the complex oxidation of alloys, electrochemical oxidation and the factors affecting the adherence of oxide layers.

(an important consideration when providing protection against further oxidation). Very complex oxidation and sublimation phenomena are also discussed together with hot corrosion and atmospheric control for the protection of metals. I wonder, however, whether the sections dealing with coatings for oxidation protection and decarburization of steels are really necessary to the main thrust of the book. Experimental methods for investigating oxidation behaviour are also briefly described.

This book is a useful introduction to the complexity of oxidation phenomena.

F. B. Pickering

F. B. Pickering is reader in metallurgy at Sheffield City Polytechnic.

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BOOKS

PSYCHOLOGY

Out of sight, out of mind

Managing the Mind: a study of medical psychology in early nineteenth-century Britain by Michael Donnelly
Tavistock, £11.00 and £5.50
ISBN 0 422 78370 6 and 78380 3
Mental Illness and American Society 1875-1940
by Gerald N. Grob
Princeton University Press, £21.70
ISBN 0 691 08332 0

For a long neglected subject, the history of society's relationship to insanity has made remarkable progress during the past 15 years, certainly reflecting more than the general inflation of academic activity. The product has been largely Anglo-American, though with some European contributions, of which Foucault's is the most interesting, if not the most reliable.

Starting with a predominantly social administration technique of telling it like it was and a Whiggish ideology of unbroken human progress, this scholarly effort has passed through the fires of Marxist and sociological revisionism, emerging in a more sophisticated form. There are those who remain firmly in their liberal or materialist postures, but the level of published information is now such as to provide no further excuse for arguing simply by assertion, even though Michael Donnelly concludes that it is still virtually impossible to assess from the actual extent of either the public health problems or individual disorders of insanity until the mid-nineteenth century.

Donnelly himself deals with the period 1790-1850 in Britain; Gerald Grob covers the period 1875-1940 in the United States. Both have produced considerable works of scholarship (Grob's containing nearly 100 pages of notes and references) and both have something new to say. How regrettable then that the two books are very badly written; there is no need for such learned works to be boring, as has been shown repeatedly by Kathleen Jones and by Michael Macdonald in his fascinating *Mystical Bedlam* (Cambridge University Press, 1981).

Donnelly acknowledges this debt to Foucault's theory of a general normative "discipline" which developed at the end of the eighteenth century as a characteristic of bourgeois civilization and was seen equally in the techniques of penal, medical, educational and religious organizations. There were remarkable similarities then between the plans of new asylums, hospitals and prisons, and these formed the material basis for new conceptions of social relations, both among those confined and with those set above them. Like Jeremy Bentham's panopticon, which separated each prisoner from the noxious influence of his fellows while keeping him under unobtrusive observation, new mental hospitals maintained a discrete atmosphere of restraint, which was an essential part of "moral management", yet without the overt trappings of a prison. Late eighteenth-century proposals for lunacy reform were "an integral part of a greater reforming programme, which sought to rationalize and reconstruct the whole of social policy" but whether or not that constituted bourgeois discipline is a matter of ideology. (Grob describes a similar process in the American states, almost a century later.)

All this was in reaction, however, to the rumbustious and insanitary chaos of eighteenth-century life, so intensely portrayed by Hogarth and Rowlandson - as was the building of the first suburbs, where middle-class people could live a segregated and quieter life on their own. Donnelly is concerned with this background and particularly with the cultural representations of madness, which influenced the growth of medical psychology. His other objective is to describe the historic shift in social policies which initiated the era of specialized mental institu-



The Infirmary, the men's ward of Bethlehem Hospital. From the *Illustrated Times* (1860), reprinted in Michael Donnelly's *Managing the Mind*.

tions, and in so doing "to work at cross-purposes against what are still commonly implicit assumptions". This means avoiding the backward projection of modern concepts, even including the category of the insane, which emerged against considerable odds, and probably only because of the unusual prestige accorded to medical psychology.

From this point of view, "It was not the social salience of insanity which produced the category [but] the mental characteristics" - hence the importance of that medical psychology; yet evidence within the book argues the other way. Until the first comprehensive Act of 1845, the law was not concerned with the mental aspects of insanity *per se*, but only with their social consequences; the confinement of lunatics and idiots therefore served broadly social purposes. Although their numbers (however defined) were completely unknown, an apprehensive feeling was in the air that these were growing rapidly in such "unsettled" times. The problem was particularly visible in towns, but Donnelly does not seem to be aware of the important hypothesis by Cooper and Sartorius linking industrialization with increased levels of chronic schizophrenia. Both authors, in fact, are hampered by lack of a psychiatric perspective, because the main reason for the inexorable rise in the size of asylums in both countries was the chronicity of much schizophrenic illness. Once a "litter receptacle" existed, it was filled to overflowing with such cases, but understanding this process is as much a matter of epidemiology as of social policy.

Donnelly rightly focuses on "moral treatment" as the critical concept in the process of transition to the modern era; psychological restraint which stemmed from the noble example of a paternal physician then stood in contrast to the locks, chains and brutality of old Bedlam. The approach was essentially an individual one, with prescription of specific tasks, diver-

sions, and human interactions that could guide the diseased mind back to the habits of sanity; phenology fitted well with this, and had the further advantage of being a medical monopoly. Much learned dispute occurred, however, as to whether civilization of which England was considered here to be the most advanced example) tended to promote or to reduce insanity; there were precisely opposite views on this, as there are today on the effects of affluence.

But for one whose purpose is to avoid looking at the past with the eyes of today, Donnelly makes some surprising statements. The pathological account of mental diseases around 1800 were "poorly defined, if at all"; the link between "moral insanity" and the poor was proposed in "muddled and badly prejudicial terms"; understanding of the physical causes of insanity was "rudimentary or often fanciful". From today's standpoint, all this was just as true of the rest of medicine at the time, but who's being ahistorical now? An even greater drawback to the book is its convoluted and at times impenetrable language, of which "historically and logically prior sedimentary levels" is an example. It may just reveal an American sociologist, or it may conceal some loose thinking, but either way, it ought to have been savaged by an editor before publication.

Neither is lucid prose a feature of the second book. The Grob wagon train has been plodding its ponderous way across the American historical landscape for some considerable time now, with social policy on the mentally ill as its main objective. The author is never a person to use one word where two will do, and so we get "moulded and shaped" or "tautonomous and free", as well as much repetition of conclusions. To make matters worse, the situations described often vary from state to state, and we are spared no detail of how New Hampshire differed from Delaware in the minutiae of its laws

and mental health provision. Such parochial matters, as well as the byzantine manoeuvrings of professional associations would have been better dispersed into journal articles, leaving the book to paint a broad picture of the subject in America as a whole.

For the determined reader, there are in fact many important findings to be unearthed, although Professor Grob tends to refer to purely American trends to a number of developments which occurred just as much in Britain and other industrialized countries. Although his researches have been exhaustive in the United States, they have not extended very widely outside it to provide any comparative setting.

Moral treatment was as important in the first American mental hospitals as it had been, somewhat earlier, in England; its emphasis on the interaction of individuals with their environment and on the need to create a therapeutic milieu has a surprisingly modern resonance. In the 13 colonies, family and parish care of the poor and insane were largely modelled on the Elizabethan Poor Law - a system which broke down in both countries in the face of population growth, urbanization and social mobility. The result was growth of a complex institutional structure, founded on an ideology of short-term cure, but in fact providing minimum levels of care for continuity by growing numbers of those who could not survive by themselves. In America, the chronic mentally ill were joined there, particularly after about 1890, by more and more of the aged and physically sick, as local communities found this was a way of off-loading their dependents on to the state system.

In the 1960s, this process was to go into reverse: states emptied their mental hospitals into the federally funded sector, but the "deinstitutionalization" was more apparent than real. Meanwhile, psychiatry, which had been a part of the mental hospitals, transferred its interest and activities to private practice and non-institutional work.

Grob provides a useful corrective to such anti-asylum sociologists as Goffman, pointing out that the hospitals' imperfections and limitations were little different from those of most human institutions. There are even more dramatic events to be told in his next volume, which would be far more effective in a much briefer format.

Hugh Freeman

Hugh Freeman is senior consultant psychiatrist at the Hope Hospital, Salford, and editor of "British Journal of Psychiatry".

A collection of papers by Michael Shepherd has been published as *The Psychosocial Matrix of Psychiatry* by Tavistock at £14.95. The papers are arranged under five headings: epidemiology; public health; health services; education; and history.

learning terms. The fact that we as adults recognize that the moral is orthogonal to, or independent of, all authority and power structures, and all cultural or group norms, should have made us question this orthodoxy as an adequate account of moral development. Turiel's finding that young children are already beginning to understand this leaves us with no excuse but to rethink it.

I have only one minor critical point to make about what is undoubtedly a seminal book. Turiel devotes a whole chapter to Piaget. On the basis of his own much more thorough and comprehensive research he rightly argues that Piaget's claim that the child's understanding of morality is initially heteronomous must be radically revised. In my view, however, he does not do justice to the fact that in Piaget's monograph there are already development of an approach to morality in conflict with his own. But we shall have to wait until the second volume appears before we shall know whether I am right.

Derek Wright

Derek Wright is professor of education at the University of Leicester.

Paper presented at a conference at Brighton, Polytechnic in May, 1981, has been edited by Sohna Modgil, Celia Modgil and Geoffrey Brown and published as *Jean Piaget and Interdisciplinary Critique* by Routledge & Kegan Paul at £12.95.

BOOKS

PSYCHOLOGY

What is cognitive science?

Mental Models: towards a cognitive science of language, inference, and consciousness by P. N. Johnson-Laird
Cambridge University Press, £27.50 and £9.95
ISBN 0 521 24123 5 and 27391 9

Johnson-Laird's book is a worthy and important contribution to a new field that can be loosely characterized as those parts of psychology, philosophy, and more recently linguistics and neurophysiology concerned with the nature of the mind-machine analogy since it was first explored by Descartes and Leibniz.

Second, AI researchers, in differing degrees, try to make their "intelligent

the study of mind with the aid of complex computer programs.

AI is, in effect, *primitus inter pares* among the disciplines making up cognitive science, since what focuses interest in the new field is the various impacts of the "machine metaphor" model of mind on their traditional concerns. Without that focus, no new subject would be coming into being, any more than it was when philosophers, psychologists and logicians compared notes on the nature of mind throughout much of the earlier part of this century.

The book's subtitle provides a useful guide to what cognitive science actually is. It consists in two main activities. First, philosophers and psychologists, among others, make use of the most sophisticated AI programs currently available as metaphors, the logical limits of which can be tested - in the case of philosophy; or as the basis of theories - within their own disciplines - in the case of psychology, linguistics, and so on. Most participants would agree that, during this phase of discussion, the hardware-software distinction (that is, computers as opposed to their programs), and the nature of the control structures of programs now available, have fundamentally altered the nature of the mind-machine analogy since it was first explored by Descartes and Leibniz.

Second, AI researchers, in differing degrees, try to make their "intelligent

that colour mixture is a fact of physiology, not of physics.

The basic fact of human colour vision is that of trichromacy: we can match the appearance of any wavelength by a mixture of just three other wavelengths, provided that no one of these can be matched by a mixture of the other two. This fact became generally known in the second half of the eighteenth century, but was thought often to be a fact about light (like two chemicals mixing to produce copper sulphate) rather than one of human physiology. So, paradoxically, the fact that a sort of white could be produced from red, green and blue alone could be used as an argument against Newton's proposal that white light (from the sun) contained all kinds of light.

Trichromacy depends on the presence in the human eye of just three kinds of receptor with different peak sensitivities at different parts of the spectrum, as first suggested by Young in 1801, and by Helmholtz later in the century. As the recent conference on colour vision in Cambridge made clear, there is no serious doubt about the correctness of this theory, however much may be left to discover about the processes of colour vision itself. The proceedings of that conference formed the basis for this comprehensive guide to research in this field.

We now know that the three different kinds of cone have different spectral sensitivity curves; we know the precise shape and formation of those curves; and we know that one or more of the three kinds of cone may be missing in cases of colour deficiency. Unanimity on these issues is a relief, or should be, to psychologists studying vision, who are now relieved of a professional obligation to propound unlikely alternatives.

The existence of three receptor classes was first suspected from purely psychological observation, such as that of trichromacy. Because such studies require strict control of physical stimuli, the discipline has become known as "psychophysics", and it has been pursued with equal vigour by physicists, physiologists and (during the past hundred years) by psychologists. As the editors of *Colour Vision* say in their introduction, the subject has never been the private preserve of any single one of the conventional disciplines of science. Using laborious techniques, psychophysics has now amassed evidence consistent with the three-receptor theory. At the end of the day, however, the evidence that can be obtained from such a complex system only constrains the possible mechanisms; it cannot eliminate logically consistent alternatives even if they are intuitively implausible.

One example is that of the psychophysicists' "channels", which are logical constructs properly speaking, but which are sometimes identified enthusiastically with physical mechanisms. A very interesting recent development, made explicit by several contributions to *Colour Vision* is that the separate "colour" and "luminance" channels of psychophysics may not correspond at all to different neural pathways. The fact that the

programs conform to the experimental limits that psychologists say have established. For example, it is well attested by psychologists that the English read from left to right, and so an intelligent program that could understand English, but read it from right to left, would not be a good model in cognitive science, however excellent its comprehension, unless - and here is the interesting possibility - the constructor of the program could persuade psychologists to look again at reading, because of his program's success, and to reconsider whether readers may, in fact, simply put English sentences into a storage buffer, moving their eyes from left to right, and then "process" it in their brains, but from right to left. This suggestion is not wholly frivolous, for it shows the difficulty of bringing any one of these contributing disciplines to bear decisively on another when there are so many unknowns in play, in particular as to how the brain actually works.

A real problem comes in classifying books like this one. One does not need to be a very firm adherent of the tradition of operationalism - that the significance of scientific terms is closely related to the procedures carried out in the appropriate field - to have such worries. When confronted by a claim in psychology, one looks at the experiments, by a claim in linguistics at the generalizations about data, in AI by the performance of the programs, and

so on. But in an essay, like this book, that draws on all these disciplines, but is actually within none of them, how can one tell what is to be believed, since cognitive science has, as yet, no distinctive tradition of telling right from wrong research.

The author is an eminent psychologist, but the book contains few or no experimental results, other than some chapters demonstrating that we do not reason with syllogisms, which is reassuring. But which of us, since the medieval theologians, believed we did? Cognitive science will undoubtedly develop its own assessment procedures in time, but until then we are stuck with those of the component disciplines, and they do not fit together to make any greater whole, above and beyond some form of "theoretical psychology", one in which the experiments become too complex to perform (because the data is too multi-dimensional) so that one must fall back on an appeal to the performance of AI programs. The trouble is that, just as some psychologists are giving up experiments, so some AI workers are giving up actually writing programs, and the real intellectual danger is that cognitive science could become only an abstract and barren no-man's-land where bloodless former combatants meet.

Much of the book is tutorial in style, and some of that has no particular cognitive science content - in that, like the section on model theoretic semantics, it does not bear directly on any particular theory of the mind. References to modern philosophers of mind abound, although none of their detailed arguments are considered, and even then the references are more to what the author's friends have been up to lately, rather than to a full scan of the literature and contemporary scholarship. But the claims are always interesting, even when they seek to show that phenomena like consciousness must either be mystical or be the expression of effective computable procedures, unless they are simply large-scale phenomena that cannot be modelled by computer, such as the weather. This ignores clear and concrete cases, like the three-bodies under-gravitation problem, which can be shown to be not effectively computable but which are not at all like the weather with its "large scale" effects.

Michael Morgan

Michael Morgan is professor of psychology at University College London.

A second edition of Gillian Cohen's *The Psychology of Cognition* has been published by Academic Press at £12.80.

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edited by P. W. Downhill, Department of Psychology, University of Alaska and S. J. Biega, Community Psychology Group, Department of Social Services, London Borough of Hounslow

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BOOKS

PSYCHOLOGY

Sociable animals?

Consciousness Regained: chapters in the development of mind
by Nicholas Humphrey
Oxford University Press, £12.95
ISBN 0 19 217732 X

What is one to make of a book put together to make the points the author would have made had he sat down and written the "real book" he was wanting to write? Perhaps the most natural first response is irritation. However, in rescuing Nicholas Humphrey from his predicament, Oxford University Press has done us a service but one of which the main point might easily be missed. What we have here is a collection of articles from academic conference proceedings, popular science journals and broadcasts padded out to book size with some old reviews and the important Bronowski Memorial Lecture of October 1981.

These articles, now assembled as chapters, are disturbingly repetitive and replete with overlapping arguments. Had the main theme of the first eight chapters been represented in a new statement of about the same length we would have the meat without the midwife. As it is, the three new chapters Humphrey has managed to write are among the best in the book and the position he adopts towards mental evolution is not only original and important but also deserves the extended treatment it does not receive here. Indeed, the work has a sort of posthumous feel, as if Humphrey has now been transplanted to another realm. And this is probably why the collection reminds me of those articles put together by the friends of Kenneth Craik, that brilliant Cambridge psychologist who died young soon after the war. Why has Humphrey done it this way - especially when one knows he is alive, active and as intellectually persuasive as ever?

In fact all those apologies in the preface are quite unnecessary. True this is not a real book or a definitive statement but Humphrey does not need to make one. A critic, better than the author, may grasp the fact that here we have that rare phenomenon -

a first-class writer of essays. As essayist Humphrey is superb. Perhaps he will never write his great book. No matter - essays are good enough. Each of these pieces comes in a chiselled twentieth-century prose given precision by a scientific intelligence that is humorous, sensitive and profoundly concerned with the problems of the present day. In the same spirit the gentle but devastating debunking of Alistair Hardy, the Uri Geller supporters and Gregory Bateson almost succeeds in enhancing these authors' reputations while letting their trousers down.

In these "essays" then Nicholas Humphrey has two main messages. The first concerns the evolution of human consciousness and the second the psychology of our inability to cope with the Bomb. Both themes demand our attention.

To understand the significance of Humphrey's theory of mental evolution we have to recognize that he is writing in a time of major change in psychological thinking. Humphrey trades in the difficult interface between experimental and social psychology. It is precisely in this area that the shift away from the tight empiricism of the behaviourism that has dominated psychology for so long to the functionalist approaches of modern cognitive theory is most significant. Behaviourism was only concerned with the laws of behaviour and not the mechanism. The problems of the processes mediating stimulus and the response were strangely and dogmatically ignored. That an animal might think before it responded went too much against the grain.

Yet it is the representation of the environment that an animal (including man) must seem to hold if complex decisions are to be taken that forms the life-blood of cognitive theory. If "representations" are essential to cognitive theory where are they held? We do not know but it must be in the brain. And the brain has a history - an evolution. Therefore, whatever the processes that govern representation may be, they too are subject to evolution and thus become a biological as well as a psychological problem. Humphrey is not only a brilliant experimental psychologist but also assistant director of the prestigious animal behaviour laboratory at Madingley outside Cambridge. He is well aware of contemporary evolutionary debates and these have thrown his preoccupations with mental process into an original perspective.

An animal may not always be conscious of the environmental "representations" that comprise the information it has about the world. Does a spider "know" what it is doing? Through self-awareness we humans at



The *filus rex* in the form of a hermaphrodite. From *Rosarium Philosophorum* (1550), reprinted in C. G. Jung's *Alchemical Studies*, translated by R. F. C. Hull and published by Routledge & Kegan Paul at £8.95.

least know that the events in progress involve this thing I call myself. How did that sort of consciousness - which William James called the "me" - evolve?

Humphrey points out that animals with complex social lives have complex communication systems, they indulge in transactions. "One animal may, for instance, wish to change the behaviour of another; but since the second animal is himself reactive and intelligent the interaction soon becomes a two-way argument where each player must be ready to change tactics - and maybe his goals - as the game proceeds." To do this well an animal needs to be able to read off the intentions of the other. Humphrey is in order to "calculate" an appropriate response. By a kind of mimicry the animal needs to be able to generate in itself the incipient responses it perceives in the other. To make sense of these the animal must, however, be able to "feel" them. Having emotions is thus a way of feeling how one is (what one's motivation is) in order to predict what a companion showing the external signs of feelings may be about to do. In evolution it seems likely that individuals who are good social predictors would do well. In the social game concerned with reproductive competition. The ability to feel in order to know the other would thus have originated in an evolved social function. It thus follows that only sufficiently sociable animals would be "conscious".

Humphrey was one of the first thinkers to propose a theory of the origin of consciousness and intellect. His ideas are important and provide the foundations for a cognitive ethology. Debate, of course, continues. For example, social relations are a class of object relations and it seems plausible that wherever complex decision making is required a degree of conscious self-representation may be desirable even if it is at a mere proprioceptive level. On the other hand, as is true of all possible "it would" for instance, be difficult to confirm that the very sociable dog is more self-conscious than the more environmentally orientated cat. Their self-awareness may be related to different representations of the environment determined by differential attentiveness to their worlds, itself a result of natural selection. Indeed, had Humphrey extended his self more in these essays he would doubtless have taken up these and similar points.

Sadly we humans do not always know what we do. We can only understand where we are by reference to the world. When we find ourselves disoriented, and this Humphrey believes is one main reason for the terrible inadequacy of human response to the threat of the Bomb, Humphrey's deeply felt and courageous Bronowski Memorial Lecture is just as important today when, in addition to natural

blindness, the governments of our time spend public money in deliberate campaigns designed to smear the honest intentions of those with even a little insight. The role of an essay such as this is to make us more conscious of our difficulty. The academic does not condone the "enemy", he points out where the problem lies and, by reading off what is the situation for the enemy as well as for ourselves, can prepare the ground for understanding and negotiation.

Today it seems that half the population of this country expects nuclear war in our time, half demands at least a freeze in the deployment of nuclear weapons. Some I know are almost welcoming the prospect of destruction so sick are they of their intellectually numbing despair. Yet others, millions of them, are at last in protest and taking to the streets. The politicians prattle on, held in the "prisoners dilemma" of a super power game that seems at times to have no plausible resolution other than the end of civilization itself. Humphrey's analysis of the psychology of this situation is cogent, important and must be read. For this alone you should buy this book. For this alone Humphrey must go on thinking and writing these perceptive, critical and provoking essays. I feel sure he will, for the burden of the academic in our times is to go on saying what must be said.

John H. Crook

John H. Crook is reader in psychology at the University of Bristol, and author of "The Evolution of Human Consciousness" (1980).

Human factor

Personality: measurement and theory
by Paul Kline
Hutchinson, £10.95 and £4.95
ISBN 0 09 130710 3 and 130711 1
Theory of Personality and Individual Differences: factors, systems, and processes
by Joseph R. Royce and Arnold Powell
Prentice-Hall, £26.95
ISBN 0 13 914473 0

At a level especially suited to senior undergraduates, Kline provides a clear and useful manual on personality tests, and, where these obtain, their underlying scientific theories. At a more advanced level, Royce and Powell present a systematic conceptual framework for the study of individual differences, which is founded on the cooperative research of some 20 psychologists working at the University

of Alberta for various times over a period of about 20 years.

Kline, as befits the only reader in psychometrics in this country (at the University of Exeter), is strongly committed to the position that personality - the sum total of the characteristics (traits) of an individual which constitute his behaviour, to his very human different from others - can be measured, and that these measurements can be inserted into the linear specification equations appropriate to any behaviours. The resultant relations can then be used in educational, occupational and clinical psychology.

His conviction, with its emphasis on the central importance of factor analysis - an established mathematical procedure which reveals the underlying structure of the correlations between test scores - is rigorously argued, and is refreshing to read a vigorous defence of personality trait quantification. Royce and Powell in their theory of individuality also make use of factor analysis. And by relating this to systems and information processing, development as metamorphogenesis, factor-gene and factor-learning, they are able to present a conceptual model which they believe can describe changes in behaviour during the entire lifespan of an individual.

The work of the two most influential objective theorists of personality, H. J. Eysenck and R. B. Cattell, is assessed in a chapter by Kline and incorporated by Royce and Powell into their individuality theory. Kline emphasizes that Eysenck's basic replicable dimensions of extraversion, neuroticism and psychotism do have a physiological basis. It is surely the potential of investigating this substrate which helps to distinguish testable scientific theories of personality from those resting on the fantastical, untestable projections of depth psychology, and to overcome with facts the prevalent assumptions that assessment procedures are intrinsically suspect and that people are really all the same. However, in an earlier chapter, Kline has assembled results which suggest that even the verbal responses in lab tests can be objectively scored.

Kline examines the evidence for Eysenck's claims fairly, but the latter's "typological" postulate unfortunately becomes a "topological" one, implying that the theory is incapable of change in the face of counter-evidence. He concludes that predictions from Eysenck's theory are supported in only half of the experiments conducted to test them. When it comes to the data, however, Eysenck wins on points against Cattell who seems to have erected a complicated theoretical structure that is "not buttressed by powerful empirical findings". Indeed, given the parsimony of Eysenck's theory, many psychologists might prefer to consume his nourishing half rather than starve in the labyrinth of Cattell's structured learning theory.

Nevertheless, Cattell's VIDAS model is a monumental attempt to create a "standard systems analysis model with cybernetic control" that deals with information and energy applied to behaviour. There are seven components to the system, including memory storage and the "real properties of the organism - abilities and temperament". Thus, a connection is established between personality and cognition: between temperament and the processes of memory and intelligence.

Just such a connexion is vested in the grand design of Royce and Powell, who have sensory and motor transformation systems which feed information to the "cognitive system", the primary function of which is postulated to be the "detection or combination of invariants". The complications of their system, however, may be the inevitable result of, as they put it, "the search for an integrative understanding of ourselves as individuals embedded in complex physical and cultural environments".

Their search even attempts to include "style and value integrative systems" and an examination of the existential aspects of their system. One of the *Cherry Orchard* comes a place "where a group of aristocrats are identified with a clear enough value hierarchy, but the values in which they invest are no longer viable"; thus, even literary criticism disappears into their system.

The two books are well worth reading.

R. E. Rawles
R. E. Rawles is lecturer and departmental tutor in psychology at University College London.

THE TIMES HIGHER EDUCATION SUPPLEMENT 18.11.83

BOOKS

PSYCHOLOGY

Abstract models

The Development of Perception, Cognition and Language: a theoretical approach
by Paul van Geert
Routledge & Kegan Paul, £17.50
ISBN 0 7100 9420 5

Theories about children's psychological development have been having a rough ride lately. The trouble is that it is proving more and more difficult to demonstrate that anything develops at all. By devising more ingenious and more sensitive ways of probing children's ability psychologists have been able to show that even very young babies can perceive, remember and understand things that hitherto have been thought to be quite impossible even for very much older children. Abilities which were thought to develop slowly during childhood have been shown to be there, so to speak, right from the start.

As one developmental claim after another has crumbled we have all become increasingly aware of an inherent weakness in the notion of development itself. To show that psychological mechanisms develop in the way that Luria or Piaget claimed you have to prove a negative. You have to demonstrate the non-existence in young children of a psychological mechanism which anyway can never be observed directly, and this is a very difficult thing to do. That is why very little theoretical progress has been made in child psychology recently, and it is also why Paul van Geert's book, which is nothing more than an exercise in developmental theory, comes as something of a surprise.

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Illustration taken from Alan V. Jones's *Science for Handicapped Children*, a guide for parents and teachers of handicapped children published by Souvenir Press at £7.95 and £5.95.

It would be wrong to say that van Geert has a theory about development. In fact he has several. His theoretical ideas are diverse, because he takes a rather novel approach to theorizing. His opinion is that "the investigation of the early states of perceptual development requires not only a thorough empirical investigation of the perceiving subject but also a formal study of the objects - space, objects, events - of the perceptual world". This "formal study" of the objects of perception dominates the book. Each chapter on perception starts with a long and usually complicated description of what is perceived. This then dictates the model that he offers of the sort of psychological mechanisms which could account for this sort of perception. Different aspects of perception: different models.

These models are invariably complex and difficult to understand and they are never directly tested. Having set up each model van Geert's inevitable next step is to review the evidence on children to see whether very young children do perceive whatever is in question and therefore whether the model could be applied to them. The answer is invariably a damp squib. Either there is no good evidence ("if we overview the available research we may conclude that it is only loosely concerned with the kind of theoretical question we are interested in") or the evidence shows that young babies do perceive whatever is in question ("we conclude that the most plausible initial-state model is the one in which all prefunctional operators are present at least in a rudimentary state").

This leaves us with two worrying gaps. First, we are told that the book is about development but it establishes nothing developmental. Second, nothing is done to show whether the theoretical models themselves, which in any case are not particularly developed, are right. To show that young children do perceive whatever it is that the models are said to account for does not demonstrate that the models account for that perception.

The book starts with perception and ends with meaning. The perceptual chapters are on the whole well informed, although occasionally van Geert slips. His account of the evidence on perception of depth, for example, is woefully inadequate, although his conclusions about it fit in reasonably well with the experimental work he forgot to mention. His section on children's ability to integrate information coming through different senses, however, is misleading because it fails to make a clear distinction between the development of individual senses such as vision or touch and the development of links between them. There never has been the slightest shred of evidence for the latter kind of development and yet van Geert implies that it does happen.

The latter chapters on cognition are less comprehensive and more idiosyncratic; indeed one chapter is distinctly eccentric. This deals with representational development - a popular and much reviewed topic - but the chapter is completely devoted to an attack on the obscure views of a pair of authors (Meltzoff and Moore) on this topic. In this and in the other chapters on cognition and language in children most of the central questions which have occupied child psychologists during the last few decades are omitted.

A problem he does not really face is that the message that specific disability is based on particular information processing deficits in the individual usually leaves the lay person hoping for recommendations about special teaching provision and "handicaps" to be understood why research so far has no clear answers. Why is there no hope of as yet undiscovered remedies waiting around the corner? Should learning disabled pupils be given more of the same, taught to their strengths, or

strengthened in their weaknesses? The student and specialist practitioner may be able to appreciate the difficulties but it is less likely that teachers and parents will be helped by Jorm's book. However, if they are prompted to think more about the differences between reading and spelling difficulties this can only be to the good.

Chall writes not about a minority group but about mainstream education. She raises some important issues which are certainly worth thinking about. Progress in reading can be characterized either as a broad-based and broad-fronted development or as a sequence of qualitatively different stages. If the latter, are the stages to be described by locating skill in the reader or by identifying demands in the curriculum?

Chall settles for stages, but in justifying her choice by reference to literature on both psycholinguistics and the curriculum does not distinguish how these might affect the description of stages. To what extent is the research into psycholinguistic skills in reading directed by preconceived notions based in curriculum practice, and how is curriculum practice influenced by ideas of child development?

Chall does not deal with these questions, but they may well occupy the reader's mind and dispose towards an evaluative rather than accepting attitude towards her thesis. Such a discerning reader might wish that Chall had drawn on cross-cultural evidence to test rather than to prop up ideas derived largely from education in the United States.

Even within that provision Chall nevertheless finds problems and experiences that go some way to coding her thesis. For example, she sees the novice's efforts to seek meaning as being superseded by a stage of concentration on explicit effort to decode from print to sound before the search for meaning is resumed at a third stage. She is aware, however, that the decoding stage is not apparent in all learners, and certainly varies in the time given to it by both learners and teachers. She also observes that explicit decoding can be found to be related to text difficulty rather than to stage used and decoders are not oblivious of the need to read for meaning. The reader must wonder whether stages are nothing more than an artefact of the curriculum, particularly that in American schools.

Similarly, Chall is very concerned about the difficulty which grade four children in the United States have in developing from fluent enough reading of simple narrative text towards intelligent reading of non-fiction and more difficult fiction. She suspects that the emphasis on narrative in the early grades derives from the development of "child-centred" primary education with its leaning towards "fun" rather than from the full range of interests of young children, so she recommends the earlier introduction of non-fiction. This also undermines her description of stages. Furthermore, she acknowledges the difficulties encountered in relation to provision according to stage in that some children can read remarkably well before they enter school, whereas others are always out of phase in the other direction.

Despite these difficulties Chall does succeed in emphasizing the dependence of the reader on adequate experience and cognitive maturity to deal with various kinds of text, and she draws out the importance of understanding the use of reading for different purposes. If she had been less swayed by the view that reading is taught and learned, the learner needing adequate stimulation, and more by an appreciation of the urge to mastery in environments that provide pay-off, she might have been less attached to an invariant stage model and more open to reconsidering curriculum issues. As it is, there is a real possibility that she will simply be seen to be broadly confirming current American practice. It is to be hoped that such an effect does not rub piff on to education in this country.

Hazel Francis

Hazel Francis is professor of educational psychology at the Institute of Education, University of London.

An "updated" edition of Jeanne S. Chall's *Learning to Read: the great debate* has been published by McGraw-Hill at £15.95. A new introduction, reviewing and evaluating the changes in practice and theory during the past fifteen years, precedes a reprint of the 1967 edition.

CONFLICT AND LANGUAGE PLANNING IN QUEBEC

Edited by
Richard Y. Bourhis

The many issues raised by this book concern not only Canadian readers but also all those involved in fields such as political science, sociology, education, sociolinguistics, language planning and social psychology. This volume will help readers better appreciate the issues raised by decisions such as Bill 101 in Quebec. Above all it shows that LANGUAGE CAN BE PLANNED.

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Edited by
George Saunders

It is envisaged that each issue of The Bilingual Family Newsletter will contain:

1. A fairly short main article, written for the general reader, but incorporating current research and thinking on bilingualism.
 2. A second article by a member of the advisory board or another contributor relating their personal experiences.
 3. A correspondence section where parents, and children, can exchange views.
 4. A question and answer section in which members of the advisory board will suggest answers to reader's queries and problems.
- The first issue of THE BILINGUAL FAMILY NEWSLETTER will appear in February 1984. There will be FOUR ISSUES a year and overseas subscribers will receive their issues by air.
- Price £3.00 p.a. for individual family subscribers.
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MULTILINGUAL MATTERS LTD
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Cleveland, Avon BS21 7HH
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ESSAY PRIZE

Professors of the late Professor Ivor Morris. The value of the prize is £200 and the competition is open to all undergraduates at Heriotes and Polytechnic in the United Kingdom. The subject for this year's essay is:

IS JAPAN A GREAT POWER?

Answers should be typewritten and not more than 4,000 words in length. They should be sent to:

**Dr. J. Neary, Dept. of Humanities, The Polytechnic,
Queensgate, Huddersfield, HD1 1QH**
by the 31st January, 1984.

Doctor of Technology: John Parker.

The Ivan Morris Memorial Prize

BRITISH ASSOCIATION FOR JAPANESE STUDIES

invites entries for an

ESSAY PRIZE

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CLASSIFIED ADVERTISEMENTS

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Universities

UNIVERSITY OF PAPUA NEW GUINEA Port Moresby

Applications are invited from suitably qualified persons for the following position in the Goroka Teachers' College:

SENIOR LECTURER/LECTURER/SENIOR TUTOR/TUTOR IN MATHEMATICS

(Two positions on 3-year contract and One position Temporary)
Applicants should be experienced secondary or tertiary level teachers who can teach remedial mathematics, mathematics subject matter and mathematics teaching methods to the College trainees. Applicants should possess a relevant university degree and teaching qualifications.

The College trains teachers for secondary teaching in Grades 7-10 and the Mathematics Department trains students who have chosen Mathematics as their teaching subject. The Department is also responsible for teaching mathematics to students from all subject areas who are not up to a standard of competence required by the College.

The successful applicants will be expected to take up duties as soon as possible.

LECTURER/SENIOR TUTOR/TUTOR IN PRACTICAL SKILLS

Applicants should have either a Bachelor's or a Master's degree in Education and qualifications in practical skills. They should have experience in teaching practical skills in Papua New Guinea secondary schools and/or in developing countries. Experience in tertiary education in other developing countries, especially in the field of vocational training, is highly desirable.

Salary: Senior Lecturer - K16,720 per annum plus gratuity; Lecturer 2/Senior Tutor 2 - K17,870 per annum plus gratuity; Lecturer 1/Senior Tutor 1 - K16,020 per annum plus gratuity; Tutor - K15,700 per annum plus gratuity.

Other conditions: The successful applicant will be offered a contract for a three-year appointment. The gratuity entitlement is based on 24% of salary earned and is payable in instalments or lump sum and is taxed at a rate of 2%. In addition to the salary quoted above, the main benefits include: support for approved research, rent-free accommodation, appointment and repatriation allowances for appointees and dependents; financial assistance towards the cost of transporting effects to and from Papua New Guinea; 6 weeks annual recreation leave with home airfare multiple after each 15 months or continuous service; generous education allowance for children attending schools in Papua New Guinea or overseas; a salary continuation scheme to cover extended leave or disability.

Applicants will be invited to submit a curriculum vitae and should include a full curriculum vitae, a recent small photograph and the names and addresses of three referees. In order to expedite the appointment procedure, applicants are advised to send their references to send confidential reports directly to the University (GTC) without writing to be contacted. Applications should be forwarded to the Assistant Secretary (GTC), Goroka Teachers' College, PO Box 1078, Goroka, Eastern Highlands Province, Papua New Guinea, to reach him no later than 9 December 1983. Candidates should also send a copy of their application to the Assistant Secretary (GTC), Goroka Teachers' College, PO Box 1078, Goroka, Eastern Highlands Province, Papua New Guinea, to reach him no later than 9 December 1983. Commonwealth Universities (App), 36 Gordon Square, London WC1H 0PF. (14008)

LADY MARGARET HALL, OXFORD E.P.A. CEPHALOSPORIN RESEARCH FELLOWSHIP

FLOREY RESEARCH FELLOWSHIP

The College invites applications for these Fellowships, both tenable for three years from 1 October 1984.

The E.P.A. Cephalosporin Fellowship is open to men and women working in the Medical Biological or Chemical Sciences. Applicants should normally have had at least two years of research experience. Stipend will be £5,500 p.a. plus entitlement to free meals and residence (for a single person) in College.

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UNIVERSITY OF STRATHCLYDE CHAIR OF MATHEMATICS

The University invites applications for a Chair in Mathematics. The successful candidate will be expected to have an active research interest in a branch of mathematics with particular application to engineering and applied science, and will have special responsibility for the organisation of teaching of mathematics to students from other departments.

This post is central to the activities of the department, reflecting the department's interest in the application of mathematics to problems of practical interest.

Further particulars (Ref: 92/83) may be obtained from the Registrar, University of Strathclyde, McCance Building, 18 Richmond Street, Glasgow G1 1XQ by 10th January 1984.

Appointments

Universities
Fellowships
Research and
Studentships
Polytechnics
Colleges of
Higher Education
Colleges with
Teacher Education
Colleges and
Institutes of Technology

Technical Colleges
Colleges of
Further Education
Colleges and
Departments of Art
Administration
Overseas
Adult Education
Librarians
General Vacancies
Industry and Commerce

Other classifications

Exhibitions
Awards
Conferences and Seminars
Courses

Personal
For Sale and Wanted
Holidays and
Accommodation

All box no. replies should be sent to THES at the above address

THE UNIVERSITY OF MANCHESTER DIRECTOR OF ESTATES AND SERVICES

Applications are invited for a new post of Director of Estates and Services. The Director will be one of three senior administrative officers advising the Vice-Chancellor. Candidates should preferably hold a professional qualification in engineering, buildings, surveying or appropriate related fields. Experience of university administration may be useful but is not essential as the selection committee is prepared to consider candidates from a wide range of backgrounds. Salary will be not less than £20,000 per annum. Further particulars may be obtained from the Vice-Chancellor, the University of Manchester, Manchester M13 9PL, to whom applications should be sent by 22nd December. (13972)

University of Hong Kong SENIOR LECTURESHIP AND LECTURESHIP IN SOCIAL WORK

Applications are invited for 2 posts in the Department of Social Work, the University of Hong Kong. The posts are for a Senior Lecturer and a Lecturer. Applicants must have a degree in the Social Sciences, a professional qualification in social work, and a minimum of five years' experience in professional practice, and a minimum of two years' experience in teaching. The posts are for a three-year appointment. The gratuity entitlement is based on 24% of salary earned and is payable in instalments or lump sum and is taxed at a rate of 2%. In addition to the salary quoted above, the main benefits include: support for approved research, rent-free accommodation, appointment and repatriation allowances for appointees and dependents; financial assistance towards the cost of transporting effects to and from Papua New Guinea; 6 weeks annual recreation leave with home airfare multiple after each 15 months or continuous service; generous education allowance for children attending schools in Papua New Guinea or overseas; a salary continuation scheme to cover extended leave or disability.

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University of Glasgow LECTURESHIP IN BIBLICAL STUDIES

Applications are invited for the above post in the Department of Biblical Studies. The successful candidate will be expected to have a degree in Theology or a related subject, and a minimum of five years' experience in professional practice, and a minimum of two years' experience in teaching. The posts are for a three-year appointment. The gratuity entitlement is based on 24% of salary earned and is payable in instalments or lump sum and is taxed at a rate of 2%. In addition to the salary quoted above, the main benefits include: support for approved research, rent-free accommodation, appointment and repatriation allowances for appointees and dependents; financial assistance towards the cost of transporting effects to and from Papua New Guinea; 6 weeks annual recreation leave with home airfare multiple after each 15 months or continuous service; generous education allowance for children attending schools in Papua New Guinea or overseas; a salary continuation scheme to cover extended leave or disability.

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NIHE NATIONAL INSTITUTE FOR HIGHER EDUCATION DATA

The Institute enrolled its first students on a number of first programmes in Autumn 1980: these include a degree in Electronic Engineering. A major new building development for 2,000 student places in Science and Engineering is being planned. Academic staff will be given the opportunity to be involved in these developments and will be expected to contribute to the following: the further development of the B.Eng. Electronic Engineering degree; the research and development activities of the School of Electronic Engineering; and the further establishment of M.Sc. and Ph.D. research work.

Applications are invited for: LECTURING POSITIONS IN ELECTRONIC ENGINEERING

Candidates should be well qualified academically and should also have industrial or research experience. An interest in one of the following areas would be an advantage: (a) Digital/Computer Systems; (b) Computer Aided Design and Manufacture; (c) Communications; (d) Analog System Design.

Salary Scales: Lecturer: IRC12,458 - £17,389
Assistant Lecturer: IRC 9,761 - £11,935
Application forms and further details are available from the Personnel Office, National Institute for Higher Education, Glasnevin, Dublin 9. Closing date: 2 December 1983.

THE UNIVERSITY COLLEGE OF WALES ABERYSTWYTH CHAIR OF ECONOMICS

The College Council invited applications for appointment to the Chair of Economics from 1st October, 1984, following the retirement of Professor G. L. Rees.

Further particulars can be obtained from the Registrar (Staff Office), The University College of Wales, Old College, King Street, Aberystwyth, Dyfed SY23 2AX, Wales, UK, (Tel. 0670 3177, Ext. 207), who should receive applications (12 copies) together with the names of three referees, not later than Friday, 20th January, 1984.

Applicants from overseas may submit one application by Airmail. The College reserves the right to fill the Chair by invitation. (13978)

UNIVERSITY OF STRATHCLYDE The Law School CHAIR OF LAW

The University invites applications for a Chair of Law. Applicants should be able to provide academic leadership in an area of the Law School's work, other than that of Business Law.

Further particulars (quoting ref: 61/83) may be obtained from the Registrar, University of Strathclyde, McCance Building, 18 Richmond Street, Glasgow G1 1XQ to whom applications should be returned by 12th December, 1983. (13907)

UNIVERSITY OF ESSEX SENIOR LECTURESHIP IN RUSSIAN HISTORY

Applications are invited for the above post in the Department of Russian Studies. The successful candidate will be expected to have a degree in History or a related subject, and a minimum of five years' experience in professional practice, and a minimum of two years' experience in teaching. The posts are for a three-year appointment. The gratuity entitlement is based on 24% of salary earned and is payable in instalments or lump sum and is taxed at a rate of 2%. In addition to the salary quoted above, the main benefits include: support for approved research, rent-free accommodation, appointment and repatriation allowances for appointees and dependents; financial assistance towards the cost of transporting effects to and from Papua New Guinea; 6 weeks annual recreation leave with home airfare multiple after each 15 months or continuous service; generous education allowance for children attending schools in Papua New Guinea or overseas; a salary continuation scheme to cover extended leave or disability.

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Universities continued

Papua New Guinea University of Technology Department of Chemical Technology LECTURER (2 POSITIONS)

Applications are invited for the above positions in the Department of Chemical Technology.

The Department conducts degree courses in Chemical Technology. The successful candidate will be expected to have a degree in Chemical Technology, and a minimum of five years' experience in professional practice, and a minimum of two years' experience in teaching. The posts are for a three-year appointment. The gratuity entitlement is based on 24% of salary earned and is payable in instalments or lump sum and is taxed at a rate of 2%. In addition to the salary quoted above, the main benefits include: support for approved research, rent-free accommodation, appointment and repatriation allowances for appointees and dependents; financial assistance towards the cost of transporting effects to and from Papua New Guinea; 6 weeks annual recreation leave with home airfare multiple after each 15 months or continuous service; generous education allowance for children attending schools in Papua New Guinea or overseas; a salary continuation scheme to cover extended leave or disability.

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Polytechnics continued

North East London Polytechnic

Faculty of Engineering
Department of Electrical & Electronic Engineering, Barking
Road, London E11 1AB, Essex

Appointment of Reader

Applications are invited from suitably qualified persons in the fields of Electrical, Electronic or Control Engineering to expand and develop the research and consultancy interests of the Department.

Salary: £12,510-£15,744
plus appropriate London weighting
Reference number: E/853

Lecturer II/Senior Lecturer

Applicants should be well qualified and experienced engineers in an area of power, communications or control engineering. A proven record of research achievement leading to publications or equivalent industrial experience is essential.

Salary: £11,588-£15,588
SL = £10,663-£13,443
plus appropriate London weighting allowance
Reference number: E/853 (H)

Potential applicants for the above posts are invited to contact the Head of Department, Mr F. A. Seal, Tel: 01-550 7722, Ext. 2000 for further information or to arrange an informal visit.

For further details and an application form, please contact the Personnel Office, North East London Polytechnic, Acton House Annex, 158/164 High Road, Chiswick, Uxbridge, Middlesex UB8 3LX. Telephone 01-890 7722. Ext. 3121/3110, quoting the appropriate reference number. Closing date for receipt of application forms 30th November 1983.

NELP North East London Polytechnic

(13879)

DUNDEE COLLEGE OF TECHNOLOGY

SENIOR LECTURESHIP IN NURSING STUDIES (HEALTH VISITING AND DISTRICT NURSING)

Applicants must be registered both as health visitor and district nurse; they should preferably be graduates also. The person appointed will have had relevant teaching and clinical experience and, in addition to undertaking appropriate teaching and research duties, will be required to lead the development of relevant care courses within the college.

Salary: £12,228-£15,772 (BA) - £15,411, with initial planning depending upon approved previous experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms obtainable from the Personnel Office, Dundee College of Technology, Bell Street, Dundee DD1 1HG, with whom applications should be lodged by 2 December 1983. (13821)

HUDDERSFIELD POLYTECHNIC
Department of Economic & Marketing Studies
LECTURER II/SENIOR LECTURER

Ref: ACA478
Applications are invited from suitable candidates with experience in the transport (especially freight distribution) industry to teach economics and related transport subjects on a new degree course in transport and distribution.

Salary: £12,510-£15,588
SL £10,663-£13,443 (bar) £13,443

Application forms to be returned by 2nd December, 1983 and further details are available from the Personnel Office, The Polytechnic, Queensgate, Huddersfield HD1 3DH, Tel: (0484) 22288 Ext. 2224. (13888)

Manchester Polytechnic
Faculty of Management and Business

We are concerned with training and educating tomorrow's business managers. We have a number of vacancies in the following areas:

FINANCIAL
MARKETING
PERSONNEL
MANAGEMENT
GENERAL
MANAGEMENT
BUSINESS
COMPUTING

Candidates should be suitably qualified and experienced in the relevant area. They should also have a minimum of five years' experience in the relevant area. They should be able to teach at the level of the first year of the undergraduate programme. They should be able to teach at the level of the first year of the undergraduate programme.

Salary scales: £12,510-£15,588
SL £10,663-£13,443
plus appropriate London weighting allowance
Reference number: E/853 (H)

For further particulars and application forms (re-usable) please contact the Personnel Office, Manchester Polytechnic, 100 Victoria Road, Manchester M16 6PL. (13879)

City of London Polytechnic
Faculty of Law
TEMPORARY LECTURER II IN LAW

Required from 1st January 1984 or as soon as possible thereafter to teach on a range of subjects including Law Society Lectures. An interest in Corporate Law, Partnership and other areas would be an advantage.

For further details and an application form please contact the Personnel Office, City of London Polytechnic, 100 Victoria Road, London EC1A 3BB. Tel: 01-520 7722. Ext. 3121/3110, quoting the appropriate reference number. Closing date for receipt of application forms 30th November 1983.

Kingston Polytechnic
School of Science and Technology
LECTURER II IN PHYSICS

A physicist, preferably with a PhD, to teach on the BSc (Hons) Physics programme. The successful candidate will be responsible for the delivery of lectures, tutorials and practicals. They will also be responsible for the supervision of students on the programme. They will also be responsible for the supervision of students on the programme.

Salary: £12,510-£15,588
SL £10,663-£13,443
plus appropriate London weighting allowance
Reference number: E/853 (H)

Manchester Polytechnic

Department of Electrical and Electronic Engineering
LECTURER II IN ELECTRONICS

Applicants should be well qualified in Electrical or Electronic Engineering and will be required to teach on the BSc (Hons) Electronics programme. They should also have a minimum of five years' experience in the relevant area. They should be able to teach at the level of the first year of the undergraduate programme.

Microprocessor and Computer Systems Power Electronics
Development and research work is encouraged
Salary scale: £7,215-£11,588
SL = £6,715-£10,443
plus appropriate London weighting allowance
Reference number: E/853 (H)

For further particulars and application form (re-usable) please contact the Personnel Office, Manchester Polytechnic, 100 Victoria Road, Manchester M16 6PL. Tel: 01-520 7722. Ext. 3121/3110, quoting the appropriate reference number. Closing date for receipt of application forms 30th November 1983.

Research & Studentships

Scottish Marine Biological Association

Deputy Director

Applications are invited for the post of Deputy Director of the Association's Dunstaffnage Marine Research Laboratory Oban, Scotland.

The Dunstaffnage Laboratory undertakes fundamental, multi-disciplinary research into the processes controlling marine ecosystems, particularly in Scottish coastal waters, but also in the deeper seas off the adjacent continental shelf. Applied research is also carried out on the impact of industrial development on the marine environment and into fish farming. There are close links between the Laboratory and several Scottish Universities and some post-graduate teaching is undertaken in conjunction with Stirling University. The Laboratory is mainly funded by a grant-in-aid from the Natural Environment Research Council and by research contracts commissioned by Government Departments and Industry. There is a total of about 96 staff, of whom 55 are in the Science Group. The total budget is about £1.6m, of which about £0.9m is from commissioned research.

The successful candidate will be particularly involved in the long-term planning, direction and management of the Laboratory's research programmes, working closely with the Assistant Director responsible for the commissioned research programmes. Candidates will be expected to have established reputations in marine science, preferably with experience of managing and administering scientific research.

The post is graded as Senior Principal Scientific Officer, with a salary scale of £15,605 - £19,317. S.M.B.A. staff are members of the NERC Superannuation Scheme.

Application forms and further details of the post and the work of the Laboratory are available from the Director, Dunstaffnage Marine Research Laboratory PO Box 3, Oban, Argyll, PA34 4AD, Scotland. Telephone 0631 62244. Completed application forms should be returned to him by 16th December 1983 and should include a curriculum vitae with a full publication list.

Topexpress Limited
Scientific and Computer
EXPERIMENTAL FLUID MECHANICS

We require somebody to carry out experiments on low speed flows. Research experience would be an advantage. We would consider applicants with a first degree in Engineering or a similar discipline. Topexpress is a small company specialising in long-term fundamental research. We are interested in people who can provide an informed and active control of the experimental work. We provide an environment and encourage publication of research results. Salary is £10,000-£12,000 per annum.

University of Surrey
Department of Educational Studies
RESEARCH OFFICERS (Two Posts)

(a) The curriculum implications of the new curriculum for the 11-16 age range. (b) The curriculum implications of the new curriculum for the 16-19 age range. (c) The curriculum implications of the new curriculum for the 19-25 age range. (d) The curriculum implications of the new curriculum for the 25-35 age range. (e) The curriculum implications of the new curriculum for the 35-45 age range. (f) The curriculum implications of the new curriculum for the 45-55 age range. (g) The curriculum implications of the new curriculum for the 55-65 age range. (h) The curriculum implications of the new curriculum for the 65-75 age range. (i) The curriculum implications of the new curriculum for the 75-85 age range. (j) The curriculum implications of the new curriculum for the 85-95 age range. (k) The curriculum implications of the new curriculum for the 95-105 age range. (l) The curriculum implications of the new curriculum for the 105-115 age range. (m) The curriculum implications of the new curriculum for the 115-125 age range. (n) The curriculum implications of the new curriculum for the 125-135 age range. (o) The curriculum implications of the new curriculum for the 135-145 age range. (p) The curriculum implications of the new curriculum for the 145-155 age range. (q) The curriculum implications of the new curriculum for the 155-165 age range. (r) The curriculum implications of the new curriculum for the 165-175 age range. (s) The curriculum implications of the new curriculum for the 175-185 age range. (t) The curriculum implications of the new curriculum for the 185-195 age range. (u) The curriculum implications of the new curriculum for the 195-205 age range. (v) The curriculum implications of the new curriculum for the 205-215 age range. (w) The curriculum implications of the new curriculum for the 215-225 age range. (x) The curriculum implications of the new curriculum for the 225-235 age range. (y) The curriculum implications of the new curriculum for the 235-245 age range. (z) The curriculum implications of the new curriculum for the 245-255 age range. (aa) The curriculum implications of the new curriculum for the 255-265 age range. (ab) The curriculum implications of the new curriculum for the 265-275 age range. (ac) The curriculum implications of the new curriculum for the 275-285 age range. (ad) The curriculum implications of the new curriculum for the 285-295 age range. (ae) The curriculum implications of the new curriculum for the 295-305 age range. (af) The curriculum implications of the new curriculum for the 305-315 age range. (ag) The curriculum implications of the new curriculum for the 315-325 age range. (ah) The curriculum implications of the new curriculum for the 325-335 age range. (ai) The curriculum implications of the new curriculum for the 335-345 age range. (aj) The curriculum implications of the new curriculum for the 345-355 age range. 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(aw) The curriculum implications of the new curriculum for the 475-485 age range. (ax) The curriculum implications of the new curriculum for the 485-495 age range. (ay) The curriculum implications of the new curriculum for the 495-505 age range. (az) The curriculum implications of the new curriculum for the 505-515 age range. (ba) The curriculum implications of the new curriculum for the 515-525 age range. (bb) The curriculum implications of the new curriculum for the 525-535 age range. (bc) The curriculum implications of the new curriculum for the 535-545 age range. (bd) The curriculum implications of the new curriculum for the 545-555 age range. (be) The curriculum implications of the new curriculum for the 555-565 age range. (bf) The curriculum implications of the new curriculum for the 565-575 age range. (bg) The curriculum implications of the new curriculum for the 575-585 age range. (bh) The curriculum implications of the new curriculum for the 585-595 age range. 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(cf) The curriculum implications of the new curriculum for the 835-845 age range. (cg) The curriculum implications of the new curriculum for the 845-855 age range. (ch) The curriculum implications of the new curriculum for the 855-865 age range. (ci) The curriculum implications of the new curriculum for the 865-875 age range. (cj) The curriculum implications of the new curriculum for the 875-885 age range. (ck) The curriculum implications of the new curriculum for the 885-895 age range. (cl) The curriculum implications of the new curriculum for the 895-905 age range. (cm) The curriculum implications of the new curriculum for the 905-915 age range. (cn) The curriculum implications of the new curriculum for the 915-925 age range. (co) The curriculum implications of the new curriculum for the 925-935 age range. (cp) The curriculum implications of the new curriculum for the 935-945 age range. (cq) The curriculum implications of the new curriculum for the 945-955 age range. 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